

VIA EMAIL

February 9, 2012
File No. 04.0029307.00



Ms. Nancy Lesieur
Industrial Pretreatment Coordinator
Winnepesaukee River Basin Program Wastewater Treatment Plant
Water Division
New Hampshire Department of Environmental Services
528 River Street
Franklin, New Hampshire 03235

Re: Wastewater Discharge Monitoring Report
Treated Wastewater
Merrimack Station
Public Service of New Hampshire
Bow, New Hampshire

380 Harvey Road
Manchester
New Hampshire
03103-3347
603-623-3600
FAX 603-624-9463
www.gza.com

Dear Ms. Lesieur:

On behalf of Public Service of New Hampshire (PSNH), GZA GeoEnvironmental, Inc. is pleased to submit the attached Wastewater Discharge Monitoring Report for sampling conducted on January 26, 2012, as requested to supplement the initial sampling requirements as outlined in *Special Agreement – PSNH and WRBP Wastewater Treatment Plant*.

The attached **Table 1** summarizes the analytical results for all required parameters as outlined in the terms of the Special Agreement. The attached **Analytical Data Report**, however, contains a more comprehensive list of parameters.

ANALYTICAL DISCUSSION

Flue Gas Desulfurization (FGD) wastewater requires specialized analytical techniques to overcome matrix interference for certain analysis of trace metals. To assist you in evaluating this issue further, we offer an excerpt below from the United States Environmental Protection Agency (EPA) web site and a link to their draft Standard Operating Procedure (SOP) for trace metals analysis of FGD wastewater that contains further guidance.

LABORATORY ANALYSIS OF FGD WASTEWATER

Wastewater from FGD systems can contain constituents known to cause matrix interferences. EPA has observed that, during inductively coupled plasma – mass spectrometry (ICP-MS) analysis of FGD wastewater, certain elements commonly present in the wastewater may cause polyatomic interferences that bias the detection and/or quantization of certain elements of interest. These potential interferences may become significant when measuring trace elements at concentrations in the low parts-per-billion range.

As part of a recent sampling effort for the steam electric power generating effluent guidelines rulemaking, EPA developed an SOP that was used in conjunction with EPA Method 200.8 to conduct ICP-MS analyses of FGD wastewater. The SOP describes critical technical and quality assurance procedures that were implemented to mitigate anticipated interferences and generate reliable data for FGD wastewater.



EPA regulations at 40 CFR 136.6 already allow the analytical community flexibility to modify approved methods to lower the costs of measurements, overcome matrix interferences, or otherwise improve the analysis. The draft SOP developed for FGD wastewater takes a proactive approach toward looking for and taking steps to mitigate matrix interferences, including using specialized interference check solutions (i.e., a synthetic FGD wastewater matrix). EPA's draft SOP is being made available to laboratories contemplating ICP-MS analysis of FGD wastewater, either for adoption as currently written or to serve as a framework for developing their own laboratory-specific SOP. For further information, see:

Standard Operating Procedure: Inductively Coupled Plasma/Mass Spectrometry for Trace Element Analysis in Flue Gas Desulfurization Wastewaters (30 pp, 174K), http://water.epa.gov/scitech/wastetech/guide/upload/steam_draft_sop.pdf, EPA May 2011.

Considering that specialized analytical techniques are necessary to overcome matrix interference for certain analysis of trace metals in FGD wastewater, we recommend any analysis on FGD wastewater be conducted in accordance with the EPA draft SOP for trace metals analysis of FGD wastewater.

Should you have any questions concerning this report, please do not hesitate to contact me at (603) 232-8744.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Ronald A. Breton'.

Ronald A. Breton, P.E.
Principal

RAB:mm

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Attachments: Wastewater Discharge Monitoring Report
Analytical Data Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
EPA-823-R-92-001

WASTEWATER DISCHARGE MONITORING REPORT
FOR THE YEAR 1991
FOR THE MONTH OF JANUARY

FOR THE MONTH OF JANUARY

201 7 40132

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

WASTEWATER DISCHARGE MONITORING REPORT

**WASTEWATER DISCHARGE MONITORING REPORT
WINNIPESAUKEE RIVER BASIN PROGRAM
WASTEWATER TREATMENT PLANT**

Public Service of New Hampshire - Merrimack Station
Special Agreement - PSNH and WRBP Wastewater Discharge Request
Dated 9/28/2011

Permitted Flow 25,000 gallons per day

FLOW DATA

Daily Flow Rate (gallons)	0	(average)
Monitoring Period Flow (gallons)	0	

NOTE: Discharge to WRBP Treatment Plant commenced after the 1/26/12 sampling event

FACILITY INFORMATION

Company Name Public Service Company of New Hampshire - Merrimack Station
Company Owner Public Service Company of New Hampshire
Facility Address 97 River Road
Facility Contact Harold Keyes
Telephone (603) 224-4081

MONITORING REPORT

Submittal Date 2/9/2012
Monitoring Point End of treatment process
Reporting Period First Month

SAMPLE ANALYSIS

Certified Analytical Laboratory Eastern Analytical Inc. (EAI) Certification Number 1012
Authorized Representative Lorraine Olashaw
Analytical Subcontractor Frontier Global Sciences Certification Number E87575

SAMPLE COLLECTION

Sampler Jeff Gagne (EAI)
Sample Type Grab
Sample Date 1/26/2012 Sample Time 10:00 AM
pH 7.6

CATEGORICAL PRETREATMENT STANDARDS

40 CFR 423.16: Steam Electric Power Generating Category
NOTE: There are no numerical pretreatment standards for this source

CERTIFICATION STATEMENT

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Harold Keyes

Printed Name of Authorized Representative

Harold Keyes
Signature of Authorized Representative

Station Manager

Title

2/9/2012
Date

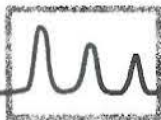
SUMMARY ANALYTICAL DATA
Treated FGD Wastewater
Public Service Company of New Hampshire
Merrimack Station
Bow, New Hampshire

PARAMETER	RESULTS (mg/L) 01/26/2012 EAI/Frontier
Aluminum	< 0.080
Arsenic	0.00956
Cadmium	0.000587
Chloride	9500
Chromium (T)	< 0.00200
Copper	0.00261
Cyanide (T)	0.01
Iron	< 0.200
Lead	< 0.000800
Manganese	0.349
Mercury	0.0000122
Molybdenum	0.373
Nickel	0.00776
Selenium	0.104
Silver	< 0.000400
Zinc	< 0.00400

GZA GeoEnvironmental, Inc.



ANALYTICAL DATA REPORT



eastern analytical

environmental laboratory solutions

Paul Pepler
GZA GeoEnvironmental, Inc. (NH)
380 Harvey Road
Manchester, NH 03103



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 107170
Client Identification: Wastewater Analysis - **Weekly**
Date Received: 1/26/2012

Dear Mr. Pepler:

Enclosed please find the laboratory report for the above identified project. 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 Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. 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 to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %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).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

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 Olshaw, Lab Director

2-8-12
Date

35
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Client Designation: **Wastewater Analysis - Weekly**

Temperature upon receipt (°C): 4.5

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

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date	Date	Sample	% Dry	Exceptions/Comments (other than thermal preservation)
		Received	Sampled	Matrix	Weight	
107170.01	Effluent Field Blank	1/26/12	1/26/12	aqueous		Adheres to Sample Acceptance Policy
107170.02	Treat Tank Effluent	1/26/12	1/26/12	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, Ignitibility, 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

eastern analytical, inc.

www.eailabs.com

Phone: (603) 228-0525



LABORATORY REPORT

EAI ID#: 107170

Client: GZA GeoEnvironmental, Inc. (NH)

Client Designation: Wastewater Analysis - Weekly

Sample ID: Treat Tank Effluent

Lab Sample ID: 107170.02

Matrix: aqueous

Date Sampled: 1/26/12

Date Received: 1/26/12

Units: ug/l

Date of Analysis: 1/27/12

Analyst: KJP

Method: 624

Dilution Factor: 1

Chloromethane < 5

Vinyl chloride < 2

Bromomethane < 2

Chloroethane < 5

Trichlorofluoromethane < 5

Acrolein < 50

Acetone < 50

1,1-Dichloroethene < 1

Methylene chloride < 5

Carbon disulfide < 5

Acrylonitrile < 50

Methyl-t-butyl ether(MTBE) < 10

trans-1,2-Dichloroethene < 2

Vinyl acetate < 10

1,1-Dichloroethane < 2

cis-1,2-Dichloroethene < 2

2-Butanone(MEK) < 10

Chloroform < 2

1,1,1-Trichloroethane < 2

Carbon tetrachloride < 2

Benzene < 1

1,2-Dichloroethane < 2

Trichloroethene < 2

1,2-Dichloropropane < 2

Bromodichloromethane < 2

2-Chloroethylvinylether < 2

4-Methyl-2-pentanone(MIBK) < 10

cis-1,3-Dichloropropene < 2

Toluene 2

trans-1,3-Dichloropropene < 2

1,1,2-Trichloroethane < 2

2-Hexanone < 10

Tetrachloroethene < 2

Dibromochloromethane < 2

Chlorobenzene < 2

Ethylbenzene < 1

mp-Xylene < 1

o-Xylene < 1

Styrene < 1

Bromoform < 2

1,1,2,2-Tetrachloroethane < 2

1,3-Dichlorobenzene < 1

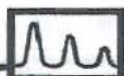
1,4-Dichlorobenzene < 1

1,2-Dichlorobenzene < 1

4-Bromofluorobenzene (surr) 93 %R

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

Toluene-d8 (surr) 99 %R



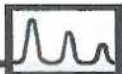
QC REPORT

EAI ID#: 107170

Client: GZA GeoEnvironmental, Inc. (NH)

Client Designation: Wastewater Analysis - Weekly

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Chloromethane	< 5	22 (110 %R)	22 (108 %R) (2 RPD)	1/27/2012	ug/l	0 - 273	20	624
Vinyl chloride	< 2	20 (99 %R)	19 (94 %R) (5 RPD)	1/27/2012	ug/l	0 - 251	20	624
Bromomethane	< 2	21 (106 %R)	21 (103 %R) (3 RPD)	1/27/2012	ug/l	0 - 242	20	624
Chloroethane	< 5	26 (129 %R)	25 (123 %R) (5 RPD)	1/27/2012	ug/l	14 - 230	20	624
Trichlorofluoromethane	< 5	25 (124 %R)	23 (116 %R) (7 RPD)	1/27/2012	ug/l	17 - 181	20	624
Acrolein	< 50	< 50 (%R N/A)	< 50 (%R N/A) (RPD N/A)	1/27/2012	ug/l			624
Acetone	< 50	< 50 (100 %R)	< 50 (97 %R) (3 RPD)	1/27/2012	ug/l			624
1,1-Dichloroethene	< 1	24 (122 %R)	23 (115 %R) (6 RPD)	1/27/2012	ug/l	0 - 234	20	624
Methylene chloride	< 5	26 (129 %R)	25 (126 %R) (2 RPD)	1/27/2012	ug/l	0 - 221	20	624
Carbon disulfide	< 5	22 (%R)	22 (%R) (RPD)	1/27/2012	ug/l			624
Acrylonitrile	< 50	< 50 (%R)	< 50 (%R) (RPD)	1/27/2012	ug/l			624
Methyl-t-butyl ether(MTBE)	< 10	20 (%R)	20 (%R) (RPD)	1/27/2012	ug/l			624
trans-1,2-Dichloroethene	< 2	25 (124 %R)	24 (121 %R) (2 RPD)	1/27/2012	ug/l	54 - 156	20	624
Vinyl acetate	< 10	30 (%R)	30 (%R) (RPD)	1/27/2012	ug/l			624
1,1-Dichloroethane	< 2	24 (118 %R)	23 (113 %R) (4 RPD)	1/27/2012	ug/l	59 - 155	20	624
cis-1,2-Dichloroethene	< 2	22 (%R)	21 (%R) (RPD)	1/27/2012	ug/l			624
2-Butanone(MEK)	< 10	20 (%R)	20 (%R) (RPD)	1/27/2012	ug/l			624
Chloroform	< 2	22 (109 %R)	21 (106 %R) (3 RPD)	1/27/2012	ug/l	51 - 138	20	624
1,1,1-Trichloroethane	< 2	23 (115 %R)	22 (110 %R) (4 RPD)	1/27/2012	ug/l	52 - 162	20	624
Carbon tetrachloride	< 2	26 (132 %R)	26 (129 %R) (2 RPD)	1/27/2012	ug/l	70 - 140	20	624
Benzene	< 1	22 (110 %R)	21 (107 %R) (3 RPD)	1/27/2012	ug/l	37 - 151	20	624
1,2-Dichloroethane	< 2	21 (103 %R)	20 (99 %R) (4 RPD)	1/27/2012	ug/l	49 - 155	20	624
Trichloroethene	< 2	21 (105 %R)	20 (101 %R) (4 RPD)	1/27/2012	ug/l	71 - 157	20	624
1,2-Dichloropropane	< 2	21 (105 %R)	21 (103 %R) (2 RPD)	1/27/2012	ug/l	0 - 210	20	624
Bromodichloromethane	< 2	21 (104 %R)	20 (101 %R) (3 RPD)	1/27/2012	ug/l	35 - 155	20	624
2-Chloroethylvinylether	< 2	< 2 (%R N/A)	< 2 (%R N/A) (RPD N/A)	1/27/2012	ug/l	0 - 305	20	624
4-Methyl-2-pentanone(MIBK)	< 10	20 (%R)	20 (%R) (RPD)	1/27/2012	ug/l			624
cis-1,3-Dichloropropene	< 2	20 (102 %R)	20 (102 %R) (0 RPD)	1/27/2012	ug/l	0 - 227	20	624
Toluene	< 1	22 (109 %R)	21 (106 %R) (3 RPD)	1/27/2012	ug/l	47 - 150	20	624
trans-1,3-Dichloropropene	< 2	21 (103 %R)	20 (101 %R) (2 RPD)	1/27/2012	ug/l	17 - 183	20	624
1,1,2-Trichloroethane	< 2	23 (113 %R)	22 (109 %R) (4 RPD)	1/27/2012	ug/l	52 - 150	20	624
2-Hexanone	< 10	20 (%R)	20 (%R) (RPD)	1/27/2012	ug/l			624
Tetrachloroethene	< 2	24 (120 %R)	23 (116 %R) (3 RPD)	1/27/2012	ug/l	64 - 148	20	624
Dibromochloromethane	< 2	24 (118 %R)	23 (115 %R) (3 RPD)	1/27/2012	ug/l	53 - 149	20	624
Chlorobenzene	< 2	22 (111 %R)	22 (108 %R) (3 RPD)	1/27/2012	ug/l	37 - 160	20	624
Ethylbenzene	< 1	23 (113 %R)	22 (110 %R) (3 RPD)	1/27/2012	ug/l	37 - 162	20	624
mp-Xylene	< 1	47 (117 %R)	45 (112 %R) (4 RPD)	1/27/2012	ug/l	70 - 130	20	624
o-Xylene	< 1	23 (115 %R)	22 (109 %R) (5 RPD)	1/27/2012	ug/l	70 - 130	20	624
Styrene	< 1	23 (%R)	22 (%R) (RPD)	1/27/2012	ug/l			624
Bromoform	< 2	25 (125 %R)	25 (123 %R) (2 RPD)	1/27/2012	ug/l	45 - 169	20	624
1,1,2,2-Tetrachloroethane	< 2	20 (101 %R)	20 (100 %R) (1 RPD)	1/27/2012	ug/l	46 - 157	20	624
1,3-Dichlorobenzene	< 1	22 (110 %R)	21 (106 %R) (4 RPD)	1/27/2012	ug/l	59 - 156	20	624
1,4-Dichlorobenzene	< 1	22 (108 %R)	21 (107 %R) (1 RPD)	1/27/2012	ug/l	18 - 190	20	624
1,2-Dichlorobenzene	< 1	21 (105 %R)	21 (104 %R) (1 RPD)	1/27/2012	ug/l	18 - 190	20	624
4-Bromofluorobenzene (surr)	93 %R	99 %R	102 %R	1/27/2012	% Rec	70 - 130		624



QC REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Client Designation: Wastewater Analysis - *Weekly*

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,2-Dichlorobenzene-d4 (surr)	103 %R	99 %R	99 %R	1/27/2012	% Rec	70 - 130		624
Toluene-d8 (surr)	99 %R	101 %R	100 %R	1/27/2012	% Rec	70 - 130		624

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

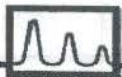
The method blanks were free of contamination at the reporting limits.

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.

*// Flagged analyte recoveries deviated from the QA/QC limits. Any impact to data is addressed below.



LABORATORY REPORT

EAI ID#: 107170

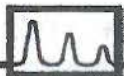
Client: GZA GeoEnvironmental, Inc. (NH)

Client Designation: Wastewater Analysis - Weekly

Sample ID: Treat Tank Effluent

Lab Sample ID: 107170.02
Matrix: aqueous
Date Sampled: 1/26/12
Date Received: 1/26/12
Units: ug/l
Date of Extraction/Preparation: 1/27/12
Date of Analysis: 1/30/12
Analyst: JMR
Method: 625mod
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	< 50
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	< 5
Nitrobenzene	< 1
Isophorone	< 1
2,4-Dinitrotoluene	< 1
2,6-Dinitrotoluene	< 1
Benzidine (estimated)	< 5
3,3'-Dichlorobenzidine	< 1
Pyridine	< 5
Azobenzene	< 1



LABORATORY REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Client Designation: **Wastewater Analysis - Weekly**

Sample ID: Treat Tank Effluent

Lab Sample ID: 107170.02

Matrix: aqueous

Date Sampled: 1/26/12

Date Received: 1/26/12

Units: ug/l

Date of Extraction/Preparation 1/27/12

Date of Analysis: 1/30/12

Analyst: JMR

Method: 625mod

Dilution Factor: 1

Carbazole < 1

Dimethylphthalate < 1

Diethylphthalate < 1

Di-n-butylphthalate < 5

Butylbenzylphthalate < 1

bis(2-Ethylhexyl)phthalate < 5

Di-n-octylphthalate < 1

Dibenzofuran < 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

2-Fluorophenol (surr) 40 %R

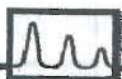
Phenol-d6 (surr) 29 %R

2,4,6-Tribromophenol (surr) 79 %R

Nitrobenzene-D5 (surr) 81 %R

2-Fluorobiphenyl (surr) 81 %R

p-Terphenyl-D14 (surr) 92 %R



QC REPORT

EAI ID#: 107170

Client: GZA GeoEnvironmental, Inc. (NH)

Batch ID: 734529-39483/A012712ABN1

Client Designation: Wastewater Analysis - *Weekly*

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Phenol	< 1	15 (30 %R)	15 (30 %R) (0 RPD)	1/30/2012	ug/l	15 - 130	20	625mod
2-Chlorophenol	< 1	30 (61 %R)	31 (61 %R) (0 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
2,4-Dichlorophenol	< 1	36 (72 %R)	36 (73 %R) (1 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
2,4,5-Trichlorophenol	< 1	21 (85 %R)	21 (84 %R) (1 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
2,4,6-Trichlorophenol	< 1	38 (76 %R)	37 (75 %R) (1 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
Pentachlorophenol	< 5	49 (97 %R)	46 (93 %R) (4 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
2-Nitrophenol	< 1	36 (73 %R)	36 (72 %R) (1 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
4-Nitrophenol	< 5	16 (33 %R)	18 (36 %R) (9 RPD)	1/30/2012	ug/l	15 - 130	20	625mod
2,4-Dinitrophenol	< 5	38 (76 %R)	41 (83 %R) (9 RPD)	1/30/2012	ug/l	15 - 130	20	625mod
2-Methylphenol	< 1	16 (64 %R)	16 (65 %R) (2 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
3/4-Methylphenol	< 1	14 (55 %R)	14 (56 %R) (2 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
2,4-Dimethylphenol	< 1	34 (67 %R)	33 (67 %R) (0 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
4-Chloro-3-methylphenol	< 1	39 (77 %R)	40 (79 %R) (3 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
4,6-Dinitro-2-methylphenol	< 5	44 (89 %R)	48 (95 %R) (7 RPD)	1/30/2012	ug/l	30 - 130	20	625mod
Benzoic Acid	< 50	< 50 (33 %R)	< 50 (35 %R) (6 RPD)	1/30/2012	ug/l	15 - 140	20	625mod
N-Nitrosodimethylamine	< 1	14 (55 %R)	13 (51 %R) (8 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
n-Nitroso-di-n-propylamine	< 1	19 (76 %R)	18 (73 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
n-Nitrosodiphenylamine	< 1	25 (101 %R)	25 (100 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
bis(2-Chloroethyl)ether	< 1	17 (67 %R)	17 (67 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
bis(2-chloroisopropyl)ether	< 1	17 (70 %R)	17 (69 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
bis(2-Chloroethoxy)methane	< 1	18 (72 %R)	17 (70 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
1,3-Dichlorobenzene	< 1	15 (59 %R)	14 (54 %R) (9 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
1,4-Dichlorobenzene	< 1	15 (59 %R)	14 (55 %R) (7 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
1,2-Dichlorobenzene	< 1	15 (60 %R)	14 (56 %R) (7 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
1,2,4-Trichlorobenzene	< 1	16 (65 %R)	15 (61 %R) (6 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
2-Chloronaphthalene	< 1	18 (73 %R)	18 (71 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
4-Chlorophenyl-phenylether	< 1	20 (79 %R)	20 (80 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
4-Bromophenyl-phenylether	< 1	21 (84 %R)	21 (84 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Hexachloroethane	< 1	13 (54 %R)	13 (51 %R) (6 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Hexachlorobutadiene	< 1	15 (61 %R)	14 (56 %R) (9 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Hexachlorocyclopentadiene	< 5	12 (49 %R)	11 (45 %R) (9 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Hexachlorobenzene	< 1	22 (88 %R)	20 (82 %R) (7 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
4-Chloroaniline	< 1	20 (82 %R)	20 (81 %R) (1 RPD)	1/30/2012	ug/l	15 - 140	20	625mod
2-Nitroaniline	< 5	19 (77 %R)	20 (79 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
3-Nitroaniline	< 1	20 (79 %R)	20 (82 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
4-Nitroaniline	< 1	19 (74 %R)	22 (88 %R) (17 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzyl alcohol	< 5	17 (70 %R)	17 (69 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Nitrobenzene	< 1	18 (71 %R)	18 (71 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Isophorone	< 1	22 (86 %R)	21 (84 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
2,4-Dinitrotoluene	< 1	22 (88 %R)	23 (92 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
2,6-Dinitrotoluene	< 1	21 (82 %R)	21 (85 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzidine (estimated)	< 5	19 (76 %R)	10 (39 %R) (64 RPD) !	1/30/2012	ug/l	15 - 168	20	625mod
3,3'-Dichlorobenzidine	< 1	22 (87 %R)	22 (88 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Pyridine	< 5	14 (54 %R)	12 (48 %R) (12 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Azobenzene	< 1	21 (82 %R)	20 (82 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod



QC REPORT

EAI ID#: 107170

Client: GZA GeoEnvironmental, Inc. (NH)

Batch ID: 734529-39483/A012712ABN1

Client Designation: Wastewater Analysis - *Weekly*

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Carbazole	< 1	22 (87 %R)	22 (90 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Dimethylphthalate	< 1	20 (80 %R)	20 (82 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Diethylphthalate	< 1	21 (82 %R)	21 (85 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Di-n-butylphthalate	< 5	22 (87 %R)	22 (89 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Butylbenzylphthalate	< 1	21 (85 %R)	22 (88 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
bis(2-Ethylhexyl)phthalate	< 5	21 (86 %R)	22 (89 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Di-n-octylphthalate	< 1	21 (85 %R)	22 (89 %R) (5 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Dibenzofuran	< 1	19 (75 %R)	19 (74 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Naphthalene	< 1	19 (77 %R)	18 (74 %R) (4 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
2-Methylnaphthalene	< 1	18 (71 %R)	17 (69 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Acenaphthylene	< 1	19 (76 %R)	19 (74 %R) (3 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Acenaphthene	< 1	20 (81 %R)	20 (80 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Fluorene	< 1	21 (83 %R)	21 (83 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Phenanthrene	< 1	22 (86 %R)	22 (86 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Anthracene	< 1	21 (85 %R)	22 (87 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Fluoranthene	< 1	22 (86 %R)	22 (88 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Pyrene	< 1	20 (82 %R)	21 (83 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzo[a]anthracene	< 1	21 (84 %R)	22 (86 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Chrysene	< 1	22 (87 %R)	22 (87 %R) (0 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzo[b]fluoranthene	< 1	20 (81 %R)	21 (83 %R) (2 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzo[k]fluoranthene	< 1	22 (90 %R)	22 (89 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzo[a]pyrene	< 1	21 (83 %R)	21 (84 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Indeno[1,2,3-cd]pyrene	< 1	21 (86 %R)	22 (87 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Dibenz[a,h]anthracene	< 1	23 (91 %R)	23 (92 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
Benzo[g,h,i]perylene	< 1	22 (89 %R)	22 (88 %R) (1 RPD)	1/30/2012	ug/l	40 - 140	20	625mod
2-Fluorophenol (surr)	42 %R	41 %R	40 %R	1/30/2012	% Rec	21 - 110	20	625mod
Phenol-d6 (surr)	29 %R	30 %R	30 %R	1/30/2012	% Rec	15 - 94	20	625mod
2,4,6-Tribromophenol (surr)	76 %R	93 %R	95 %R	1/30/2012	% Rec	15 - 110	20	625mod
Nitrobenzene-D5 (surr)	80 %R	79 %R	78 %R	1/30/2012	% Rec	35 - 114	20	625mod
2-Fluorobiphenyl (surr)	86 %R	81 %R	77 %R	1/30/2012	% Rec	43 - 116	20	625mod
p-Terphenyl-D14 (surr)	92 %R	97 %R	95 %R	1/30/2012	% Rec	33 - 130	20	625mod

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.

*If Flagged analyte recoveries deviated from the QA/QC limits.



LABORATORY REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Client Designation: Wastewater Analysis - *Weekly*

Sample ID: Treat Tank
Effluent

Lab Sample ID: 107170.02

Matrix: aqueous

Date Sampled: 1/26/12

Date Received: 1/26/12

Units: mg/L

Date of Extraction/Prep: 1/30/12

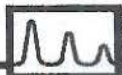
Date of Analysis: 1/30/12

Analyst: LAS

Method: 1664A

Dilution Factor: 1

Oil & Grease (HEM) < 5



QC REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Batch ID: 734532-40799/A013012OG1661

Client Designation: Wastewater Analysis - *Weekly*

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Oil & Grease (HEM)	< 5	37 (92 %R)	36 (90 %R) (2 RPD)	1/30/2012	mg/L	78 - 114	18	1664A

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.
*/! Flagged analyte recoveries deviated from the QA/QC limits.



LABORATORY REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Client Designation: Wastewater Analysis - *Weekly*

Sample ID: Treat Tank
Effluent

Lab Sample ID: 107170.02
Matrix: aqueous
Date Sampled: 1/26/12
Date Received: 1/26/12
Units: ug/l
Date of Extraction/Prep: 1/27/12
Date of Analysis: 1/27/12
Analyst: JW
Method: 608
Dilution Factor: 1

PCB-1016	< 0.3
PCB-1221	< 0.3
PCB-1232	< 0.3
PCB-1242	< 0.3
PCB-1248	< 0.3
PCB-1254	< 0.3
PCB-1260	< 0.3
TMX (surr)	87 %R
DCB (surr)	86 %R



QC REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**

Batch ID: 734529-35119/A012712E608P2

Client Designation: Wastewater Analysis - *Weekly*

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
PCB-1016	< 0.3	2.0 (101 %R)	2.0 (99 %R) (2 RPD)	1/27/2012	ug/l	50 - 114	20	608
PCB-1221	< 0.3	< 0.3 (%R N/A)	< 0.3 (%R N/A) (RPD N/A)	1/27/2012	ug/l			608
PCB-1232	< 0.3	< 0.3 (%R N/A)	< 0.3 (%R N/A) (RPD N/A)	1/27/2012	ug/l			608
PCB-1242	< 0.3	< 0.3 (%R N/A)	< 0.3 (%R N/A) (RPD N/A)	1/27/2012	ug/l			608
PCB-1248	< 0.3	< 0.3 (%R N/A)	< 0.3 (%R N/A) (RPD N/A)	1/27/2012	ug/l			608
PCB-1254	< 0.3	< 0.3 (%R N/A)	< 0.3 (%R N/A) (RPD N/A)	1/27/2012	ug/l			608
PCB-1260	< 0.3	1.9 (95 %R)	1.9 (93 %R) (2 RPD)	1/27/2012	ug/l	8 - 127	20	608
TMX (surr)	93 %R	92 %R	89 %R	1/27/2012	% Rec	30 - 150		608
DCB (surr)	104 %R	103 %R	96 %R	1/27/2012	% Rec	30 - 150		608

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

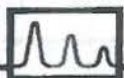
The method blanks were free of contamination at the reporting limits.

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.

*If Flagged analyte recoveries deviated from the QA/QC limits.



LABORATORY REPORT

EAI ID#: 107170

Client: GZA GeoEnvironmental, Inc. (NH)

Client Designation: Wastewater Analysis - *Weekly*

Sample ID: Treat Tank Effluent

Lab Sample ID: 107170.02

Matrix: aqueous

Date Sampled: 1/26/12

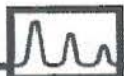
Date Received: 1/26/12

Fluoride	6.2
Chloride	9500
Nitrate-N	68
Cyanide Total	0.01
Ammonia-N	1.2
BOD	< 6
COD	180
Total Phenols	< 0.5
pH	7.6

Units	Analysis			
	Date	Time	Method	Analyst
mg/L	2/01/12	13:35	300.0	KL
mg/L	1/30/12	13:33	4500CIE	DLS
mg/L	1/27/12	9:15	353.2	DLS
mg/L	1/31/12	9:15	4500CNE	KJR
mg/L	1/30/12	15:15	4500NH3D	SEL
mg/L	1/27/12	17:30	5210B	SKC
mg/L	2/02/12	16:15	H8000	SKC
mg/L	1/31/12	9:00	420.1	JCC
SU	1/27/12	15:56	4500H+B	SEL

Total Phenols: The reporting limit has been elevated due to matrix interference.

Cyanide: Cyanide was re-analyzed on 2/8/2012¹ per client request. The re-analysis confirmed the cyanide hit. A matrix spike/matrix spike duplicate performed on this sample had acceptable recoveries.



QC REPORT

EAI ID#: 107170

Client: **GZA GeoEnvironmental, Inc. (NH)**Client Designation: **Wastewater Analysis - Weekly**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Fluoride	< 0.1	2.0 (101 %R)	2.0 (101 %R) (0 RPD)	mg/L	1/31/12	90 - 110	20	300.0
Chloride	< 1	26 (102 %R)	25 (101 %R) (1 RPD)	mg/L	1/30/12	90 - 110	20	4500CIE
Nitrate-N	< 0.5	5.1 (103 %R)	5.2 (103 %R) (0 RPD)	mg/L	1/27/12	90 - 110	20	353.2
Cyanide Total	< 0.01	0.22 (89 %R)		mg/L	1/31/12	85 - 115	20	4500CNE
Ammonia-N	< 0.05	2.1 (104 %R)	2.2 (109 %R) (5 RPD)	mg/L	1/30/12	90 - 110	20	4500NH3DN
BOD	< 6	330 (84 %R)	360 (89 %R) (6 RPD)	mg/L	1/27/12	84 - 115	20	5210B
COD	< 10	100 (102 %R)	100 (100 %R) (2 RPD)	mg/L	2/2/12	85 - 115	20	H8000
Total Phenols	< 0.05	0.24 (94 %R)	0.27 (106 %R) (12 RPD)	mg/L	1/31/12	85 - 115	20	420.1
pH		7.99	7.97	SU	1/27/12	7.95 - 8.07	10	4500H+B

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.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

*// Flagged analyte recoveries deviated from the QA/QC limits.



414 Pontius Ave North
Seattle, WA 98109
Ph: 206-622-6960
Fx: 206-622-6870

03 February 2012

Jeff Gagne
Eastern Analytical, Inc
25 Chenell Drive
Concord, NH 03301
RE: Merrimack Station

Enclosed are the analytical results for samples received by Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Liz Siska".

Liz Siska
Project Manager



414 Pontius Ave North
Seattle, WA 98109
Ph: 206-622-6960
Fx: 206-622-6870

ANALYTICAL REPORT FOR SAMPLES

Laboratory: Frontier Global Sciences, Inc.

SDG:

Client: Eastern Analytical, Inc

Project: Merrimack Station

Sample ID	Lab ID	Matrix	Date Sampled	Date Received
C-3024 Effluent Field Blank	1201361-01	Water	26-Jan-12 09:15	27-Jan-12 09:42
Treat Tank Effluent	1201361-02	Water	26-Jan-12 09:20	27-Jan-12 09:42

Frontier Global Sciences, Inc.

Liz Siska, Project Manager

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

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02/03/2012



414 Pontius Ave North
Seattle, WA 98109
Ph: 206-622-6960
Fx: 206-622-6870

CASE NARRATIVE

SAMPLE RECEIPT

Samples were received at Frontier Global Sciences (FGS) on January 27th, 2012. The samples were received intact, on-ice with temperatures measured at 2.9 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total metals in accordance with FGS-054/EPA 1638.

Samples were prepared and analyzed for total mercury in accordance with EPA Method 1631E.

ANALYTICAL ISSUES

The Effluent Field Blank was greater than the PQL, however the because the associated sample was a non-detect, re-analysis was not required.

All analytes pass according to the QC parameters of EPA Method 200.8.

Liquid spikes were prepared for every preparation as a measure of accuracy. All liquid spikes and certified reference material were within the control limits.

As an additional measure of the accuracy of the methods utilized for analysis and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

A reasonable measure of the precision of the analytical methods utilized for analysis is the relative percent difference (RPD) between matrix spike and matrix spike duplicate recoveries and between laboratory control sample and laboratory control sample duplicate recoveries. All of the relative percent differences were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

Frontier Global Sciences, Inc.

Liz Siska, Project Manager

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414 Pontius Ave North
Seattle, WA 98109
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Fx: 206-622-6870

CHAIN OF CUSTODY FORMS

1201361



Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

414 Pontius Ave. N. Seattle WA 98109
Phone: 206-622-6960
Fax: 206-622-6870
info@FrontierGS.com
http://www.FrontierGS.com

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1201361

Client: Eastern Analytical, Inc. Address: 25 Cheney Drive Cammie, WA 98301 Project Name: Merriam Station		Contact: Jeff Gagne Phone: 425-880-8800 Fax: 425-4591 E-mail: jeff@gagne.com Contract/PO: 27732		Report To: Same Address: Same Phone: 425-880-8800 Fax: 425-4591 E-mail: jeff@gagne.com		Invoice To: Same Address: Same Phone: Fax: E-mail: jeff@gagne.com		Analyses Requested		FGS PM: Lia Siska Date: 1/26/12 TAT (Business Days): 20 (std) 15 (5 4 3 2 24 hrs) (For TAT + 10 days, contact PM) Recharges apply for expedited TAT) Saturday delivery? ☐ Y ☒ N (If yes, please contact PM) EOD ☒ Y ☐ N QA ☐ Standard ☐ High	
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ H ₂ O B/C Other (%)	Titled (Y/N)	Comments	
1	C-3024	EATuent Field Blank	1	AS	1/26/12 10:05	JE	N		X	1) Metals Include: Al, Sb, As, Ba, Bi, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, Zn	
2	C-3024	Treat Tank Effluent	3	WW	1/26/12 10:05	JE	N		X	2) Please see analysis cell - FGS labware	
3										3) Project - Specific methods cell - sample volume provided	
4											
5											
6											
7											
8											
9											
10											
11											
12											
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:		
COC Seal: 10			FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TST: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other		Name: Jeff Gagne Organization: Eastern Analytical Date & Time: 1/26/12 10:05		Name: Jennifer Lane Organization: EAT Date & Time: 1/26/12 10:05		Name: UPS Organization: UPS Date & Time: 1/26/12 15:30		
Cooler Temp: 27°C			Comments: ID 4422		Tracking number: 1E X46 54913 9827 7534						
Carrier: UPS											
VTSR: 0927											
# of Coolers: 1 (one)											
Sample Disposal:					By signing, you declare that you agree with FGS' terms and conditions, and that you authorize FGS to perform the specified analyses.						
☐ Return (shipping fees may apply)					Customer Approval: [Signature] Date: 01/26/12						
☐ Standard Disposal - 30 Days after report											
☐ Retain for _____ weeks after report (storage fees may apply)											

Rec'd @ FGS 1-27-12, ALEXA M BATH, FGS 1-27-12
VTSR: 0927

Frontier Global Sciences, Inc.

Liz Siska

Liz Siska, Project Manager

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

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ANALYTICAL RESULTS

C-3024 Effluent Field Blank

Matrix: Water

Laboratory ID: 1201361-01

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Aluminum	ND	0.4	4.0	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Antimony	ND	0.005	0.020	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Arsenic	ND	0.05	0.15	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Barium	ND	0.03	0.20	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Beryllium	ND	0.023	0.060	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Cadmium	ND	0.004	0.020	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Chromium	ND	0.009	0.10	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Copper	ND	0.01	0.10	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Iron	ND	1.3	10.0	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Lead	ND	0.004	0.040	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Manganese	ND	0.007	0.10	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Mercury	ND	0.08	0.50	ng/L	1	F202015	2B03001	02/02/12	EPA 1631E	U
Molybdenum	ND	0.006	0.06	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Nickel	ND	0.008	0.10	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Selenium	ND	0.19	0.60	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Silver	ND	0.006	0.020	µg/L	1	F201252	2B02001	02/01/12	FGS-054	U
Thallium	ND	0.001	0.005	µg/L	1	F201252	2B02001	02/01/12	FGS-054	QB-02, U
Zinc	0.25	0.02	0.20	µg/L	1	F201252	2B02001	02/01/12	FGS-054	

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ANALYTICAL RESULTS

Treat Tank Effluent

Matrix: Water

Laboratory ID: 1201361-02

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Aluminum	ND	8.9	80.0	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Antimony	0.758	0.092	0.400	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Arsenic	9.56	1.02	3.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Barium	208	0.54	4.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Beryllium	ND	0.454	1.20	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Cadmium	0.587	0.083	0.400	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Chromium	ND	0.18	2.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Copper	2.61	0.20	2.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Iron	ND	26.0	200	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Lead	ND	0.078	0.800	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Manganese	349	0.15	2.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Mercury	12.2	0.34	2.02	ng/L	4	F202015	2B03001	02/02/12	EPA 1631E	
Molybdenum	373	0.12	1.20	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Nickel	7.76	0.16	2.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Selenium	104	3.88	12.0	µg/L	20	F201252	2B02001	02/01/12	FGS-054	
Silver	ND	0.120	0.400	µg/L	20	F201252	2B02001	02/01/12	FGS-054	U
Thallium	5.65	0.022	0.100	µg/L	20	F201252	2B02001	02/01/12	FGS-054	QB-01
Zinc	ND	0.33	4.00	µg/L	20	F201252	2B02001	02/01/12	FGS-054	QB-02, U

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MATRIX DUPLICATES/TRIPPLICATES

SOURCE: 1201316-03

Batch: F202015

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Number: F202015-DUP1

Analyte	Sample Concentration ng/L	Duplicate Concentration ng/L	MRL	% RPD	RPD Limit	Method	Notes
Mercury	6.99	5.98	1.00	15.6	24	EPA 1631E	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201361-02

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-MS/MSD1

Analyte	Sample Concentration (µg/L)	Spike Added (µg/L)	MS Concentration (µg/L)	MS % Recovery	Recovery Limits	Method	Notes
Beryllium	ND	2.0200	2.214	110	75 - 125	FGS-054	
Aluminum	66.2	151.50	213.7	97.4	80 - 115	FGS-054	
Chromium	0.57	7.0700	7.92	104	85 - 115	FGS-054	
Manganese	348.7	6.0600	353.9	86.1	80 - 120	FGS-054	
Iron	ND	505.00	494.7	98.0	75 - 125	FGS-054	
Nickel	7.76	4.0400	11.66	96.7	68 - 134	FGS-054	
Copper	2.61	4.0400	6.22	89.4	51 - 145	FGS-054	
Zinc	ND	10.100	9.96	98.6	46 - 146	FGS-054	
Arsenic	9.56	15.150	24.20	96.6	85 - 115	FGS-054	
Selenium	104.4	30.300	127.8	77.1	59 - 149	FGS-054	
Molybdenum	373.5	2.0200	375.9	119	80 - 115	FGS-054	QM-02
Silver	ND	1.5150	1.289	85.1	74 - 119	FGS-054	
Cadmium	0.587	0.80800	1.229	79.5	84 - 113	FGS-054	QM-07
Antimony	0.758	0.80800	1.539	96.7	79 - 122	FGS-054	
Barium	208.4	10.100	214.5	60.3	80 - 120	FGS-054	QM-02
Thallium	5.650	0.40400	5.907	63.6	64 - 137	FGS-054	QB-01, QM-02
Lead	ND	1.5150	1.488	98.2	72 - 143	FGS-054	

Analyte	Spike Added (µg/L)	MSD Concentration (µg/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Beryllium	2.0200	2.256	112	1.88	75 - 125	20	FGS-054	
Aluminum	151.50	213.6	97.3	0.0484	80 - 115	20	FGS-054	
Chromium	7.0700	7.58	99.1	4.45	85 - 115	20	FGS-054	
Manganese	6.0600	355.8	118	0.544	80 - 120	20	FGS-054	
Iron	505.00	489.5	96.9	1.06	75 - 125	20	FGS-054	
Nickel	4.0400	11.39	89.9	2.39	68 - 134	20	FGS-054	
Copper	4.0400	6.23	89.5	0.117	51 - 145	20	FGS-054	
Zinc	10.100	9.23	91.4	7.53	46 - 146	20	FGS-054	
Arsenic	15.150	25.81	107	6.44	85 - 115	20	FGS-054	
Selenium	30.300	130.8	86.9	2.28	59 - 149	20	FGS-054	
Molybdenum	2.0200	377.7	210	0.491	80 - 115	20	FGS-054	QM-02

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201361-02

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-MS/MSD1

Analyte	Spike Added (µg/L)	MSD Concentration (µg/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Silver	1.5150	1.273	84.0	1.28	74 - 119	20	FGS-054	
Cadmium	0.80800	1.102	63.8	10.8	84 - 113	20	FGS-054	QM-07
Antimony	0.80800	1.618	107	5.02	79 - 122	20	FGS-054	
Barium	10.100	219.6	110	2.32	80 - 120	20	FGS-054	
Thallium	0.40400	6.127	118	3.66	64 - 137	20	FGS-054	QB-01
Lead	1.5150	1.502	99.1	0.946	72 - 143	20	FGS-054	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201361-02

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-MS/MSD3

Analyte	Sample Concentration (µg/L)	Spike Added (µg/L)	MS Concentration (µg/L)	MS % Recovery	Recovery Limits	Method	Notes
Beryllium	ND	20.200	18.23	90.2	75 - 125	FGS-054	AS
Aluminum	66.2	4040.0	3986	97.0	80 - 115	FGS-054	AS
Chromium	0.57	404.00	411.3	102	85 - 115	FGS-054	AS
Manganese	348.7	404.00	755.7	101	80 - 120	FGS-054	AS
Iron	ND	2020.0	2012	99.6	75 - 125	FGS-054	AS
Nickel	7.76	505.00	488.7	95.2	68 - 134	FGS-054	AS
Copper	2.61	505.00	459.9	90.6	51 - 145	FGS-054	AS
Zinc	ND	1010.0	870.1	86.1	46 - 146	FGS-054	AS
Arsenic	9.56	404.00	408.2	98.7	85 - 115	FGS-054	AS
Selenium	104.4	404.00	480.3	93.0	59 - 149	FGS-054	AS
Molybdenum	373.5	202.00	574.9	99.7	80 - 115	FGS-054	AS
Silver	ND	20.200	17.43	86.3	74 - 119	FGS-054	AS
Cadmium	0.587	40.400	37.52	91.4	84 - 113	FGS-054	AS
Antimony	0.758	20.200	20.06	95.5	79 - 122	FGS-054	AS
Barium	208.4	808.00	987.1	96.4	80 - 120	FGS-054	AS
Thallium	5.650	20.200	25.86	100	64 - 137	FGS-054	AS, QB-01
Lead	ND	101.00	97.63	96.7	72 - 143	FGS-054	AS

Analyte	Spike Added (µg/L)	MSD Concentration (µg/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Beryllium	20.200	18.26	90.4	0.151	75 - 125	20	FGS-054	AS
Aluminum	4040.0	3956	96.3	0.751	80 - 115	20	FGS-054	AS
Chromium	404.00	408.1	101	0.780	85 - 115	20	FGS-054	AS
Manganese	404.00	752.0	99.8	0.487	80 - 120	20	FGS-054	AS
Iron	2020.0	1989	98.5	1.13	75 - 125	20	FGS-054	AS
Nickel	505.00	485.4	94.6	0.681	68 - 134	20	FGS-054	AS
Copper	505.00	459.2	90.4	0.161	51 - 145	20	FGS-054	AS
Zinc	1010.0	870.5	86.2	0.0542	46 - 146	20	FGS-054	AS
Arsenic	404.00	412.0	99.6	0.916	85 - 115	20	FGS-054	AS
Selenium	404.00	470.1	90.5	2.15	59 - 149	20	FGS-054	AS
Molybdenum	202.00	574.5	99.5	0.0697	80 - 115	20	FGS-054	AS
Silver	20.200	17.50	86.6	0.385	74 - 119	20	FGS-054	AS

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201361-02

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-MS/MSD3

Analyte	Spike Added (µg/L)	MSD Concentration (µg/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Cadmium	40.400	38.59	94.1	2.81	84 - 113	20	FGS-054	AS
Antimony	20.200	20.14	95.9	0.386	79 - 122	20	FGS-054	AS
Barium	808.00	994.4	97.3	0.729	80 - 120	20	FGS-054	AS
Thallium	20.200	25.85	100	0.0375	64 - 137	20	FGS-054	AS, QB-01
Lead	101.00	97.56	96.6	0.0774	72 - 143	20	FGS-054	AS

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201316-03

Batch: F202015

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Number: F202015-MS/MSD1

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Mercury	6.99	20.200	22.10	74.8	71 - 125	EPA 1631E	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Mercury	20.200	20.97	69.2	5.22	71 - 125	24	EPA 1631E	QM-05

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201361-02

Batch: F202015

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Number: F202015-MS/MSD2

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Mercury	12.20	40.800	52.32	98.3	71 - 125	EPA 1631E	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Mercury	40.800	52.12	97.8	0.379	71 - 125	24	EPA 1631E	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1201359-01

Batch: F202015

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Number: F202015-MS/MSD4

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Mercury	1171	1530.0	2618	94.6	71 - 125	EPA 1631E	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Mercury	1530.0	2594	93.1	0.888	71 - 125	24	EPA 1631E	

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-BS/BSD1

LCS Source: Blank Spike

Analyte	Spike Added (µg/L)	LCS Concentration (µg/L)	LCS % Recovery	Recovery Limits	Method	Notes
Beryllium	2.0000	1.962	98.1	75 - 125	FGS-054	
Aluminum	150.00	146.0	97.3	85 - 115	FGS-054	
Chromium	7.0000	6.47	92.5	85 - 115	FGS-054	
Manganese	6.0000	5.83	97.1	85 - 115	FGS-054	
Iron	500.00	459.4	91.9	80 - 120	FGS-054	
Nickel	4.0000	3.92	98.0	68 - 134	FGS-054	
Copper	4.0000	4.17	104	51 - 145	FGS-054	
Zinc	10.000	10.48	105	46 - 146	FGS-054	
Arsenic	15.000	14.27	95.1	85 - 115	FGS-054	
Selenium	30.000	28.04	93.5	59 - 149	FGS-054	
Molybdenum	2.0000	1.88	93.8	85 - 115	FGS-054	
Silver	1.5000	1.490	99.3	74 - 119	FGS-054	
Cadmium	0.80000	0.825	103	84 - 113	FGS-054	
Antimony	0.80000	0.780	97.5	79 - 122	FGS-054	
Barium	10.000	9.78	97.8	85 - 115	FGS-054	
Thallium	0.40000	0.417	104	64 - 134	FGS-054	QB-01
Lead	1.5000	1.517	101	72 - 143	FGS-054	

Analyte	Spike Added (µg/L)	LCSD Concentration (µg/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Beryllium	2.0000	1.944	97.2	0.928	75 - 125	20	FGS-054	
Aluminum	150.00	145.9	97.2	0.0872	85 - 115	20	FGS-054	
Chromium	7.0000	6.46	92.2	0.275	85 - 115	20	FGS-054	
Manganese	6.0000	5.74	95.6	1.55	85 - 115	20	FGS-054	
Iron	500.00	458.2	91.6	0.251	80 - 120	20	FGS-054	
Nickel	4.0000	3.96	99.0	1.01	68 - 134	20	FGS-054	
Copper	4.0000	4.16	104	0.0881	51 - 145	20	FGS-054	
Zinc	10.000	10.39	104	0.846	46 - 146	20	FGS-054	
Arsenic	15.000	14.17	94.4	0.731	85 - 115	20	FGS-054	

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F201252

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Number: F201252-BS/BSD1

LCS Source: Blank Spike Dup

Analyte	Spike Added (µg/L)	LCSD Concentration (µg/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Selenium	30.000	27.98	93.3	0.184	59 - 149	20	FGS-054	
Molybdenum	2.0000	1.86	92.8	1.11	85 - 115	20	FGS-054	
Silver	1.5000	1.501	100	0.752	74 - 119	20	FGS-054	
Cadmium	0.80000	0.757	94.7	8.56	84 - 113	20	FGS-054	
Antimony	0.80000	0.797	99.6	2.18	79 - 122	20	FGS-054	
Barium	10.000	9.76	97.6	0.247	85 - 115	20	FGS-054	
Thallium	0.40000	0.410	103	1.51	64 - 134	20	FGS-054	QB-01
Lead	1.5000	1.524	102	0.433	72 - 143	20	FGS-054	

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F202015

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Number: F202015-BS/BSD1

LCS Source: Nist 1641d

Analyte	Spike Added (ng/L)	LCS Concentration (ng/L)	LCS % Recovery	Recovery Limits	Method	Notes
Mercury	15.679	15.11	96.4	80 - 120	EPA 1631E	

Analyte	Spike Added (ng/L)	LCSD Concentration (ng/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Mercury	15.679	14.79	94.3	2.16	80 - 120	24	EPA 1631E	

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PREPARATION BLANKS

Instrument: ICPMS-6

Sequence: 2B02001

Preparation: Closed Vessel Nitric Oven Digestion

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F201252-BLK1	Beryllium	-0.0003	0.060	µg/L	F201252	FGS-054	U
F201252-BLK1	Aluminum	0.01	4.0	µg/L	F201252	FGS-054	U
F201252-BLK1	Chromium	-0.04	0.10	µg/L	F201252	FGS-054	U
F201252-BLK1	Manganese	-0.0007	0.10	µg/L	F201252	FGS-054	U
F201252-BLK1	Iron	-0.4	10.0	µg/L	F201252	FGS-054	U
F201252-BLK1	Nickel	0.004	0.10	µg/L	F201252	FGS-054	U
F201252-BLK1	Copper	0.02	0.10	µg/L	F201252	FGS-054	U
F201252-BLK1	Zinc	0.32	0.20	µg/L	F201252	FGS-054	QB-10
F201252-BLK1	Arsenic	-0.15	0.15	µg/L	F201252	FGS-054	U
F201252-BLK1	Selenium	0.14	0.60	µg/L	F201252	FGS-054	U
F201252-BLK1	Molybdenum	0.004	0.06	µg/L	F201252	FGS-054	U
F201252-BLK1	Silver	-0.001	0.020	µg/L	F201252	FGS-054	U
F201252-BLK1	Cadmium	-0.010	0.020	µg/L	F201252	FGS-054	U
F201252-BLK1	Antimony	-0.0003	0.020	µg/L	F201252	FGS-054	U
F201252-BLK1	Barium	0.07	0.20	µg/L	F201252	FGS-054	U
F201252-BLK1	Thallium	0.002	0.005	µg/L	F201252	FGS-054	QB-02, U
F201252-BLK1	Lead	0.0003	0.040	µg/L	F201252	FGS-054	U

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PREPARATION BLANKS

Instrument: Hg-17

Sequence: 2B03001

Preparation: BrCl Oxidation

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F202015-BLK1	Mercury	0.06	0.50	ng/L	F202015	EPA 1631E	U
F202015-BLK2	Mercury	0.03	0.50	ng/L	F202015	EPA 1631E	U
F202015-BLK3	Mercury	0.05	0.50	ng/L	F202015	EPA 1631E	U
F202015-BLK4	Mercury	0.06	0.50	ng/L	F202015	EPA 1631E	QB-04, U

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Notes and Definitions

- U Analyte included in the analysis, but not detected
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- QM-05 The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- QM-02 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- QB-10 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
- QB-04 The blank was preserved to 2% BrCl rather than 1%. The control limit for blanks preserved to greater than 1% BrCl is the preservation percentage multiplied by the MRL.
- QB-02 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the sample concentrations are less than the MRL.
- QB-01 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- DET Analyte Detected
- MDL Minimum Detection Limit
- MRL Minimum Reporting Limit
- ND Analyte Not Detected at or above the reporting limit
- wet Sample results reported on a wet weight basis
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- RSD Relative Standard Deviation

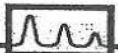
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eastern analytical, inc.

professional laboratory services

CHAIN-OF-CUSTODY RECORD

107170

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Sample IDs	Date/Time <i>Composites need start and stop dates/times</i>	Matrix	Parameters and Sample Notes	# of containers
Effluent Field Blank	1/26/12 9:15	aqueous Grab or Comp	AqTot/SWLLMetalsSub	1
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL HNO ₃ H ₂ SO ₄ NaOH MEOH Na ₂ S ₂ O ₈ <u>ICE</u>	Dissolved Sample Field Filtered ☐
Treat Tank Effluent	1/26/12 9:20	aqueous Grab or Comp	AqTot/SWLLMetalsSub/NH3/BOD/Cl/COD/CyanT/F/NO3/OG1664/V624A/E625/E608PCB/TPhenols / <u>PH</u> <u>→</u>	17
☒ Sampler confirms ID and parameters are accurate			Circle preservative/s: <u>HCL</u> <u>HNO₃</u> <u>H₂SO₄</u> <u>NaOH</u> MEOH Na ₂ S ₂ O ₈ <u>ICE</u>	* AT CUSTOMER'S REQUEST Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 3902

Project Name Wastewater Analysis - Weekly

State NH

Client (Pro Mgr) Paul Pepler

Customer GZA GeoEnvironmental, Inc. (NH)

Address 380 Harvey Road

City Manchester NH 03103

Phone 623-3600

Fax 624-9463 (37)

EmailAddress: paul.pepler@gza.com

Results Needed by: Preferred date 1/28/12

Notes about project: (i.e. Special Limits, Billing info if different...)

Subcontract ALL metals to Frontier Global Sciences.

Metals include Total

Al, Sb, As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, Zn. Metals analyses require project-specific MS/MSD.

624, 625, 608 results needed

2/1/2012

2/1/2012 JS

QC deliverables

☒ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ PC

Reporting Options

- ☒ HC
- ☒ EDD PDF
- ☒ EDD email
- ☒ PDF prelim, NO FAX
- ☐ e-mail Login Confirmation
- ☐ NO FAX

PONumber: 02259252

Quote No:

Temperature 4.5 °C

Ice present Yes ☒ No ☐

Samples Collected by: JB JG

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

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

Phone: (603)228-0525

1-800-287-0525

Fax: (603)228-4591