

Put on BRATS
9/17/15
RRL

Richard, Philip E - DNR

From: Ree, Timothy <Tim.Ree@ghd.com>
Sent: Thursday, September 17, 2015 1:20 PM
To: Richard, Philip E - DNR
Cc: Frehner, Ron; Storlie, Pete
Subject: Penta Wood - WPDES Compliance Sampling and Between Carbon Unit Sampling 9/10/2015 ~COR-086165~
Attachments: Lab Report-240-55285-1-086165-02-08-2015-09-17.pdf; Lab Report-240-55277-1-086165-02-06-2015-09-15.pdf

Phil,

Please find attached the results for the influent, effluent, and between the carbon unit samples collected at the Penta Wood site on 9/10/2015.

PCP was detected in the effluent at a concentration of 0.032 ug/L (estimated), which is below the permit criteria of 0.1 ug/L. WI-DRO and naphthalene were not detected in the effluent sample.

PCP was detected in the influent sample at a concentration of 750 ug/L, which is higher than the influent PCP concentration of 370 ug/L during August 2015. Typically, the effluent concentration exceeds the permit criteria only when the influent concentration is greater than approximately 1,000 ug/L. The next time we are at the Site, we will confirm whether slight adjustments may be necessary at the extraction wells (i.e., decrease pumping rate at EW6).

PCP was detected in the sample collected between the carbon units at a concentration of 0.15 ug/L, which is approximately the same as during August 2015 (0.14 ug/L) and indicates that a carbon exchange is not required.

Please update Kathy Bartilson (WDNR) and Linda Martin (USEPA).

Regards,

Tim Ree

GHD

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-55285-1

Client Project/Site: 86165-02-01, Penta Wood

For:

GHD Services Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
9/17/2015 8:05:48 AM

Denise Heckler, Project Manager II
(330)966-9477

denise.heckler@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	14
Lab Chronicle	15
Certification Summary	16
Chain of Custody	17
Receipt Checklists	20

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Job ID: 240-55285-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-55285-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 09/11/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-150910-PS-ME (240-55285-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 09/14/2015 and analyzed on 09/15/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

WISCONSIN DRO

Sample W-150910-PS-ME (240-55285-1) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 09/14/2015 and analyzed on 09/15/2015.



Case Narrative

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Job ID: 240-55285-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHLORINATED HERBICIDES

Samples W-150910-PS-ME (240-55285-1) and W-150910-PS-MI (240-55285-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 09/12/2015 and analyzed on 09/14/2015 and 09/15/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Sample W-150910-PS-MI (240-55285-2)[1000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Method Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8151A	Herbicides (GC)	SW846	TAL PIT
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Sample Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-55285-1	W-150910-PS-ME	Water	09/10/15 10:30	09/11/15 09:25
240-55285-2	W-150910-PS-MI	Water	09/10/15 10:50	09/11/15 09:25

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Detection Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Client Sample ID: W-150910-PS-ME

Lab Sample ID: 240-55285-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil	Fac	D	Method	Prep Type
Pentachlorophenol	0.032	J	0.094	0.015	ug/L	4			8151A	Total/NA

Client Sample ID: W-150910-PS-MI

Lab Sample ID: 240-55285-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil	Fac	D	Method	Prep Type
Pentachlorophenol	750		24	3.7	ug/L	1000			8151A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton



Client Sample Results

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Client Sample ID: W-150910-PS-ME

Lab Sample ID: 240-55285-1

Date Collected: 09/10/15 10:30

Matrix: Water

Date Received: 09/11/15 09:25

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.060		0.19	0.060	ug/L		09/14/15 08:50	09/15/15 12:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		29 - 110	09/14/15 08:50	09/15/15 12:49	1
2-Fluorophenol (Surr)	40		15 - 110	09/14/15 08:50	09/15/15 12:49	1
2,4,6-Tribromophenol (Surr)	80		21 - 128	09/14/15 08:50	09/15/15 12:49	1
Nitrobenzene-d5 (Surr)	87		31 - 110	09/14/15 08:50	09/15/15 12:49	1
Phenol-d5 (Surr)	23		10 - 110	09/14/15 08:50	09/15/15 12:49	1
Terphenyl-d14 (Surr)	88		31 - 115	09/14/15 08:50	09/15/15 12:49	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.032	J	0.094	0.015	ug/L		09/12/15 12:45	09/14/15 10:29	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	45		32 - 140	09/12/15 12:45	09/14/15 10:29	4

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.050		0.10	0.050	mg/L		09/14/15 06:56	09/15/15 22:50	1

Client Sample Results

Client: GHD Services Inc.
 Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Client Sample ID: W-150910-PS-MI

Lab Sample ID: 240-55285-2

Date Collected: 09/10/15 10:50

Matrix: Water

Date Received: 09/11/15 09:25

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	750		24	3.7	ug/L		09/12/15 12:45	09/15/15 13:54	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	0	XD	32 - 140				09/12/15 12:45	09/15/15 13:54	1000

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Surrogate Summary

Client: GHD Services Inc.
 Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (31-115)
240-55285-1	W-150910-PS-ME	86	40	80	87	23	88
LCS 240-197343/22-A	Lab Control Sample	86	66	89	86	48	95
MB 240-197343/21-A	Method Blank	81	59	85	82	38	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 TBP = 2,4,6-Tribromophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPH = Terphenyl-d14 (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1 (32-140)	DCPA2 (32-140)
240-55285-1	W-150910-PS-ME	45	39
240-55285-2	W-150910-PS-MI	0 X D	0 X D
LCS 180-153455/2-A	Lab Control Sample	66	56
LCSD 180-153455/3-A	Lab Control Sample Dup	78	69
MB 180-153455/1-A	Method Blank	32	29 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

QC Sample Results

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-197343/21-A
Matrix: Water
Analysis Batch: 197521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197343

Analyte	Result	MB MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.063		0.20	0.063	ug/L		09/14/15 08:50	09/15/15 09:24	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		29 - 110	09/14/15 08:50	09/15/15 09:24	1
2-Fluorophenol (Surr)	59		15 - 110	09/14/15 08:50	09/15/15 09:24	1
2,4,6-Tribromophenol (Surr)	85		21 - 128	09/14/15 08:50	09/15/15 09:24	1
Nitrobenzene-d5 (Surr)	82		31 - 110	09/14/15 08:50	09/15/15 09:24	1
Phenol-d5 (Surr)	38		10 - 110	09/14/15 08:50	09/15/15 09:24	1
Terphenyl-d14 (Surr)	94		31 - 115	09/14/15 08:50	09/15/15 09:24	1

Lab Sample ID: LCS 240-197343/22-A
Matrix: Water
Analysis Batch: 197521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197343

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	Limits
Naphthalene	20.0	16.2	ug/L		81	52 - 120

Surrogate	%Recovery	LCS LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	86		29 - 110
2-Fluorophenol (Surr)	66		15 - 110
2,4,6-Tribromophenol (Surr)	89		21 - 128
Nitrobenzene-d5 (Surr)	86		31 - 110
Phenol-d5 (Surr)	48		10 - 110
Terphenyl-d14 (Surr)	95		31 - 115

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-153455/1-A
Matrix: Water
Analysis Batch: 153542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153455

Analyte	Result	MB MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.016		0.10	0.016	ug/L		09/12/15 12:45	09/14/15 09:18	4

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	32		32 - 140	09/12/15 12:45	09/14/15 09:18	4

Lab Sample ID: LCS 180-153455/2-A
Matrix: Water
Analysis Batch: 153542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153455

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	Limits
Pentachlorophenol	5.00	3.88	ug/L		78	40 - 140

Surrogate	%Recovery	LCS LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	66		32 - 140

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 180-153455/3-A
Matrix: Water
Analysis Batch: 153542

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 153455

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pentachlorophenol	5.00	5.05		ug/L		101	40 - 140	26	30
Surrogate		%Recovery	Qualifier	Limits					
2,4-Dichlorophenylacetic acid		78		32 - 140					

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Lab Sample ID: MB 240-197303/2-A
Matrix: Water
Analysis Batch: 197611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197303

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.050		0.10	0.050	mg/L		09/14/15 06:56	09/15/15 21:56	1

Lab Sample ID: LCS 240-197303/3-A
Matrix: Water
Analysis Batch: 197611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
WI Diesel Range Organics (C10-C28)	0.500	0.448		mg/L		90	75 - 115

Lab Sample ID: LCSD 240-197303/4-A
Matrix: Water
Analysis Batch: 197611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 197303

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	0.500	0.446		mg/L		89	75 - 115	0	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

GC/MS Semi VOA

Prep Batch: 197343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	3510C	
LCS 240-197343/22-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-197343/21-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 197521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	8270C	197343
LCS 240-197343/22-A	Lab Control Sample	Total/NA	Water	8270C	197343
MB 240-197343/21-A	Method Blank	Total/NA	Water	8270C	197343

GC Semi VOA

Prep Batch: 153455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	8151A	
240-55285-2	W-150910-PS-MI	Total/NA	Water	8151A	
LCS 180-153455/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-153455/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-153455/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 153542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	8151A	153455
LCS 180-153455/2-A	Lab Control Sample	Total/NA	Water	8151A	153455
LCSD 180-153455/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	153455
MB 180-153455/1-A	Method Blank	Total/NA	Water	8151A	153455

Analysis Batch: 153719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-2	W-150910-PS-MI	Total/NA	Water	8151A	153455

Prep Batch: 197303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	3520C	
LCS 240-197303/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-197303/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-197303/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 197611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55285-1	W-150910-PS-ME	Total/NA	Water	WI-DRO	197303
LCS 240-197303/3-A	Lab Control Sample	Total/NA	Water	WI-DRO	197303
LCSD 240-197303/4-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	197303
MB 240-197303/2-A	Method Blank	Total/NA	Water	WI-DRO	197303

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
 Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Client Sample ID: W-150910-PS-ME

Lab Sample ID: 240-55285-1

Date Collected: 09/10/15 10:30

Matrix: Water

Date Received: 09/11/15 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			197343	09/14/15 08:50	CS	TAL CAN
Total/NA	Analysis	8270C		1	197521	09/15/15 12:49	JMG	TAL CAN
Total/NA	Prep	8151A			153455	09/12/15 12:45	CBY	TAL PIT
Total/NA	Analysis	8151A		4	153542	09/14/15 10:29	JMO	TAL PIT
Total/NA	Prep	3520C			197303	09/14/15 06:56	CSC	TAL CAN
Total/NA	Analysis	WI-DRO		1	197611	09/15/15 22:50	DEB	TAL CAN

Client Sample ID: W-150910-PS-MI

Lab Sample ID: 240-55285-2

Date Collected: 09/10/15 10:50

Matrix: Water

Date Received: 09/11/15 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			153455	09/12/15 12:45	CBY	TAL PIT
Total/NA	Analysis	8151A		1000	153719	09/15/15 13:54	JMO	TAL PIT

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Certification Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55285-1

Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16

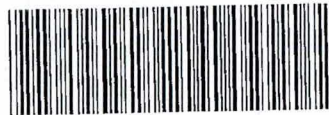


TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-55285 Chain of Custody

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TestAmerica Canton
4101 Shuffel Street, N. H.

3.8 / C4.8

Chain of Custody Record

031740

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Regulatory Program: DW NPDES RCRA Other:

grant.Anderson@GHD.com

Client Contact		Project Manager: Tim Ree		Site Contact:		Date: 9-10-15		COC No: 1	
Company Name: GHD		Tel/Fax:		Lab Contact: P. Heckler		Carrier: Fed Ex		1 of 1 COCs	
Address: 1801 Old Hwy 8		Analysis Turnaround Time		Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Sampler: Peter Staric	
City/State/Zip: St. Paul, MN 55112		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: STANDARD						For Lab Use Only:	
Phone: 651-639-0913		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day						Walk-in Client:	
Fax:								Lab Sampling:	
Project Name: 086165-02-01								Job / SDG No.:	
Site: Penta Wood								Sample Specific Notes:	
P O #									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.			
W-150910-PS-ME		9-10-15	1030	G	W	6	NN	XXX	Monthly Eff
W-150910-PS-MI		9-10-15	1050	G	W	2	NN	X	Monthly Inf
/		/	/	/	/	/	/	/	/
/		/	/	/	/	/	/	/	/
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Preservation Used: 1= Ice; 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:	
Relinquished by: [Signature]		Company: GHD		Date/Time: 9/10/15-1230		Received by: Alex Heber		Company: TA	
Relinquished by:		Company:		Date/Time:		Received by:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	

Page 18 of 20



Canton Facility _____

Client GHID Site Name _____ Cooler unpacked by: Alex Weber

Cooler Received on 9/11/15 Opened on 9/11/15

FedEx: 1st Grd UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box _____ Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
 - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 3.8 °C Corrected Cooler Temp. 4.8 °C
 - IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No No
 - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were custody seals on the bottle(s) or bottle kits (LLHg/McHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No pH Strip Lot# HC554612
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes No

See Multiple Cooler Form

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
 Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

15. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-55285-1

Login Number: 55285

List Number: 2

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

List Creation: 09/12/15 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-55277-1

Client Project/Site: 86165-02-01, Penta Wood

For:

GHD Services Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
9/15/2015 12:24:17 PM

Denise Heckler, Project Manager II
(330)966-9477

denise.heckler@testamericainc.com

LINKS

Review your project
results through
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 **Ask
The
Expert**

Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Detection Summary	7
Client Sample Results	8
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Chain of Custody	14
Receipt Checklists	17



Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



Case Narrative

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Job ID: 240-55277-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-55277-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 09/11/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

CHLORINATED HERBICIDES

Sample W-150910-PS-BG (240-55277-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 09/12/2015 and analyzed on 09/14/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 180-153455.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Method	Method Description	Protocol	Laboratory
8151A	Herbicides (GC)	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Sample Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-55277-1	W-150910-PS-BG	Water	09/10/15 11:00	09/11/15 09:25

- 1
- 2
- 3
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Detection Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Client Sample ID: W-150910-PS-BG

Lab Sample ID: 240-55277-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.15		0.096	0.015	ug/L	4		8151A	Total/NA

- 1
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This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
 Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Client Sample ID: W-150910-PS-BG

Lab Sample ID: 240-55277-1

Date Collected: 09/10/15 11:00

Matrix: Water

Date Received: 09/11/15 09:25

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.15		0.096	0.015	ug/L		09/12/15 12:45	09/14/15 09:42	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	61		32 - 140				09/12/15 12:45	09/14/15 09:42	4



Surrogate Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1 (32-140)	DCPA2 (32-140)
240-55277-1	W-150910-PS-BG	61	51
LCS 180-153455/2-A	Lab Control Sample	66	56
LCSD 180-153455/3-A	Lab Control Sample Dup	78	69
MB 180-153455/1-A	Method Blank	32	29 X

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid



QC Sample Results

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-153455/1-A						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 153542						Prep Batch: 153455			
Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.016		0.10	0.016	ug/L		09/12/15 12:45	09/14/15 09:18	4
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	32		32 - 140				09/12/15 12:45	09/14/15 09:18	4

Lab Sample ID: LCS 180-153455/2-A						Client Sample ID: Lab Control Sample			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 153542						Prep Batch: 153455			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pentachlorophenol	5.00	3.88		ug/L		78	40 - 140		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	66		32 - 140						

Lab Sample ID: LCSD 180-153455/3-A						Client Sample ID: Lab Control Sample Dup			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 153542						Prep Batch: 153455			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD Limit
Pentachlorophenol	5.00	5.05		ug/L		101	40 - 140		26 30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	78		32 - 140						

QC Association Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

GC Semi VOA

Prep Batch: 153455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55277-1	W-150910-PS-BG	Total/NA	Water	8151A	
LCS 180-153455/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-153455/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-153455/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 153542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55277-1	W-150910-PS-BG	Total/NA	Water	8151A	153455
LCS 180-153455/2-A	Lab Control Sample	Total/NA	Water	8151A	153455
LCSD 180-153455/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	153455
MB 180-153455/1-A	Method Blank	Total/NA	Water	8151A	153455



Lab Chronicle

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Client Sample ID: W-150910-PS-BG

Lab Sample ID: 240-55277-1

Date Collected: 09/10/15 11:00

Matrix: Water

Date Received: 09/11/15 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			153455	09/12/15 12:45	CBY	TAL PIT
Total/NA	Analysis	8151A		4	153542	09/14/15 09:42	JMO	TAL PIT

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Certification Summary

Client: GHD Services Inc.
Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-55277-1

Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-55277 Chain of Custody

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- 3
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TestAmerica Canton
4101 Shuffel Street, N. H.

3.8 / CY. 8

Chain of Custody Record

031741

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Regulatory Program: DW NPDES RCRA Other

grant.anderson@GHD.com

TAL-8210 (0713)

Client Contact		Project Manager: <u>Tim Ree</u>		Site Contact:		Date: <u>9-10-15</u>		COC No: <u>2</u>			
Company Name: <u>GHD</u>		Tel/Fax:		Lab Contact: <u>D. Hecker</u>		Carrier: <u>Fed Ex</u>		<u>1</u> of <u>1</u> COCs			
Address: <u>1801 Old Hwy 8</u>		Analysis Turnaround Time		Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Sampler: <u>Peter Storke</u>			
City/State/Zip: <u>St. Paul, MN 55112</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:			
Phone: <u>651-639-0913</u>		TAT if different from Below <u>Standard</u>						Walk-in Client:			
Fax:		<input type="checkbox"/> 2 weeks						Lab Sampling:			
Project Name: <u>086165-02-01</u>		<input type="checkbox"/> 1 week						Job / SDG No.:			
Site: <u>Penta World</u>		<input type="checkbox"/> 2 days									
P O #		<input type="checkbox"/> 1 day									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:				
<u>W-150910-PS-BG</u>		<u>9-10-15</u>	<u>1100</u>	<u>G</u>	<u>N</u>	<u>2</u>	<u>Between GACs</u>				
Page 15 of 117		/		/		/		/			
										Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other	
										Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.	
										<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown	
										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
										<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months	
										Special Instructions/QC Requirements & Comments:	
										Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	
										Custody Seal No.:	
										Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.:	
Relinquished by: <u>[Signature]</u>		Company: <u>GHD</u>		Date/Time: <u>9/10/15-1230</u>		Received by: <u>Alex Weber</u>		Company: <u>TA</u>			
Relinquished by:		Company:		Date/Time:		Received by:		Company:			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:			

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 55277

Canton Facility _____

Client GHID Site Name _____ Cooler unpacked by: Alex Weber

Cooler Received on 9/11/15 Opened on 9/11/15

FedEx: 1st Grd UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt _____

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 3.8 °C Corrected Cooler Temp. 4.8 °C

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC554612

12. Were VOAs on the COC? Yes No NA

13. Were air bubbles >6 mm in any VOA vials? Yes No NA

14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Ref: SOP NC-SC-0005, Sample Receiving
 X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099U-082815 Cooler Receipt Form.doc djl



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-55277-1

Login Number: 55277

List Number: 2

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

List Creation: 09/12/15 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

