

Richard, Philip E - DNR

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(99)

From: Ree, Timothy <tree@craworld.com>
Sent: Wednesday, May 06, 2015 12:05 PM
To: Richard, Philip E - DNR
Cc: Robinson, John H - DNR; Fassbender, Judy L - DNR
Subject: Penta Wood - Semiannual Groundwater Sampling Results April 2015 ~COR-086165~
Attachments: Lab Report-240-49640-1-086165-01-13-2015-05-01.pdf

Phil,

Please find attached the Penta Wood April 2015 semiannual groundwater sampling (monitoring wells) laboratory report. A preliminary review of the results indicates the data is consistent with previous sampling. We will include a more detailed discussion and data summary in the next semiannual report.

We will provide the April 2015 semiannual residential well sampling laboratory report when we receive it later this week.

Regards,

Tim Ree
Conestoga-Rovers & Associates (CRA)
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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: 240-49640-1

Client Project/Site: 86165-01-13, Penta Wood

For:

Conestoga-Rovers & Associates, Inc.
1801 Old Highway 8 NW
Suite 114
St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson



Authorized for release by:
5/1/2015 9:33:09 AM

Denise Heckler, Project Manager II
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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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Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

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)

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Job ID: 240-49640-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 86165-01-13, Penta Wood

Report Number: 240-49640-1

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 04/22/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.3° C, 3.7° C, 4.3° C, 4.5° C and 4.7° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and W-150421-PS-MW26 (240-49640-4) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/24/2015.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3), W-150421-PS-MW26 (240-49640-4), W-150421-PS-MW262 (240-49640-5) and W-150421-PS-MWB (240-49640-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/23/2015 and 04/24/2015 and analyzed on 04/24/2015, 04/27/2015 and 04/29/2015.

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.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Job ID: 240-49640-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

DISSOLVED GASES

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and W-150421-PS-MW26 (240-49640-4) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/23/2015.

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

CHLORINATED HERBICIDES

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3), W-150421-PS-MW26 (240-49640-4), W-150421-PS-MW262 (240-49640-5) and W-150421-PS-MWB (240-49640-6) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 04/24/2015 and analyzed on 04/29/2015 and 04/30/2015.

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-150420-PS-MW12 (240-49640-1)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISSOLVED METALS (ICPMS)

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3), W-150421-PS-MW26 (240-49640-4), W-150421-PS-MW262 (240-49640-5) and W-150421-PS-MWB (240-49640-6) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/23/2015 and analyzed on 04/27/2015.

Arsenic and Iron were detected in method blank MB 240-177603/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

ALKALINITY

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and W-150421-PS-MW26 (240-49640-4) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 04/24/2015 and 04/25/2015.

Alkalinity was detected in method blank MB 240-177984/32 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

HARDNESS

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and W-150421-PS-MW26 (240-49640-4) were analyzed for hardness in accordance with SM 2340C. The samples were analyzed on 04/29/2015.

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

ANIONS

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Job ID: 240-49640-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

W-150421-PS-MW26 (240-49640-4) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/22/2015.

The following sample was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: W-150420-PS-MW15 (240-49640-2[MSD]).

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

TOTAL ORGANIC CARBON

Samples W-150420-PS-MW12 (240-49640-1), W-150420-PS-MW15 (240-49640-2), W-150421-PS-MW22 (240-49640-3) and W-150421-PS-MW26 (240-49640-4) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/24/2015.

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

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8151A	Herbicides (GC)	SW846	TAL PIT
6020	Metals (ICP/MS)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
2340C-1997	Hardness, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
9060	Organic Carbon, Total (TOC)	SW846	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

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: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-49640-1	W-150420-PS-MW12	Water	04/20/15 15:15	04/22/15 09:40
240-49640-2	W-150420-PS-MW15	Water	04/20/15 14:05	04/22/15 09:40
240-49640-3	W-150421-PS-MW22	Water	04/21/15 09:55	04/22/15 09:40
240-49640-4	W-150421-PS-MW26	Water	04/21/15 11:30	04/22/15 09:40
240-49640-5	W-150421-PS-MW262	Water	04/21/15 11:40	04/22/15 09:40
240-49640-6	W-150421-PS-MWB	Water	04/21/15 12:00	04/22/15 09:40

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW12

Lab Sample ID: 240-49640-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	16		2.4	0.37	ug/L	100		8151A	Total/NA
Arsenic	1.1	J B	5.0	0.18	ug/L	1		6020	Dissolved
Copper	1.4	J	2.0	0.75	ug/L	1		6020	Dissolved
Manganese	530		5.0	1.1	ug/L	1		6020	Dissolved
Alkalinity	220	B	5.0	1.9	mg/L	1		2320B-1997	Total/NA
Hardness as calcium carbonate	410		25	16	mg/L	1		2340C-1997	Total/NA
Chloride	11		1.0	0.41	mg/L	1		300.0	Total/NA
Nitrate as N	1.7		0.10	0.035	mg/L	1		300.0	Total/NA
Sulfate	140		1.0	0.13	mg/L	1		300.0	Total/NA
Total Organic Carbon	0.95	J	1.0	0.26	mg/L	1		9060	Total/NA

Client Sample ID: W-150420-PS-MW15

Lab Sample ID: 240-49640-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.78	J B	5.0	0.18	ug/L	1		6020	Dissolved
Manganese	1.1	J	5.0	1.1	ug/L	1		6020	Dissolved
Alkalinity	190	B	5.0	1.9	mg/L	1		2320B-1997	Total/NA
Hardness as calcium carbonate	270		25	16	mg/L	1		2340C-1997	Total/NA
Chloride	11		1.0	0.41	mg/L	1		300.0	Total/NA
Nitrate as N	5.6		0.10	0.035	mg/L	1		300.0	Total/NA
Sulfate	5.7		1.0	0.13	mg/L	1		300.0	Total/NA
Total Organic Carbon	0.44	J	1.0	0.26	mg/L	1		9060	Total/NA

Client Sample ID: W-150421-PS-MW22

Lab Sample ID: 240-49640-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.072	J	0.094	0.015	ug/L	4		8151A	Total/NA
Arsenic	0.60	J B	5.0	0.18	ug/L	1		6020	Dissolved
Copper	2.8		2.0	0.75	ug/L	1		6020	Dissolved
Iron	390	B	100	16	ug/L	1		6020	Dissolved
Manganese	23		5.0	1.1	ug/L	1		6020	Dissolved
Alkalinity	42	B	5.0	1.9	mg/L	1		2320B-1997	Total/NA
Hardness as calcium carbonate	57		5.0	3.1	mg/L	1		2340C-1997	Total/NA
Chloride	1.9		1.0	0.41	mg/L	1		300.0	Total/NA
Nitrate as N	0.69		0.10	0.035	mg/L	1		300.0	Total/NA
Sulfate	3.7		1.0	0.13	mg/L	1		300.0	Total/NA
Total Organic Carbon	0.57	J	1.0	0.26	mg/L	1		9060	Total/NA

Client Sample ID: W-150421-PS-MW26

Lab Sample ID: 240-49640-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.71	J B	5.0	0.18	ug/L	1		6020	Dissolved
Manganese	4.4	J	5.0	1.1	ug/L	1		6020	Dissolved
Alkalinity	160	B	5.0	1.9	mg/L	1		2320B-1997	Total/NA
Hardness as calcium carbonate	240		25	16	mg/L	1		2340C-1997	Total/NA
Chloride	16		1.0	0.41	mg/L	1		300.0	Total/NA
Nitrate as N	2.4		0.10	0.035	mg/L	1		300.0	Total/NA
Sulfate	82		1.0	0.13	mg/L	1		300.0	Total/NA

Client Sample ID: W-150421-PS-MW262

Lab Sample ID: 240-49640-5

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW262 (Continued)

Lab Sample ID: 240-49640-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.76	J B	5.0	0.18	ug/L	1		6020	Dissolved

Client Sample ID: W-150421-PS-MWB

Lab Sample ID: 240-49640-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.098	J	0.19	0.060	ug/L	1		8270C	Total/NA
Arsenic	0.30	J B	5.0	0.18	ug/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW12

Lab Sample ID: 240-49640-1

Date Collected: 04/20/15 15:15

Matrix: Water

Date Received: 04/22/15 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	0.50	0.35	ug/L			04/24/15 14:04	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/24/15 14:04	1
Toluene	1.0	U	1.0	0.23	ug/L			04/24/15 14:04	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/24/15 14:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		63 - 129					04/24/15 14:04	1
4-Bromofluorobenzene (Surr)	80		66 - 120					04/24/15 14:04	1
Toluene-d8 (Surr)	91		74 - 120					04/24/15 14:04	1
Dibromofluoromethane (Surr)	86		75 - 121					04/24/15 14:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.060	ug/L		04/23/15 09:17	04/24/15 11:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		29 - 110				04/23/15 09:17	04/24/15 11:44	1
2-Fluorophenol (Surr)	48		15 - 110				04/23/15 09:17	04/24/15 11:44	1
2,4,6-Tribromophenol (Surr)	86		21 - 128				04/23/15 09:17	04/24/15 11:44	1
Nitrobenzene-d5 (Surr)	78		31 - 110				04/23/15 09:17	04/24/15 11:44	1
Phenol-d5 (Surr)	31		10 - 110				04/23/15 09:17	04/24/15 11:44	1
Terphenyl-d14 (Surr)	65		31 - 115				04/23/15 09:17	04/24/15 11:44	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.50	U	0.50	0.070	ug/L			04/23/15 16:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	113		66 - 132					04/23/15 16:11	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	16		2.4	0.37	ug/L		04/24/15 16:00	04/30/15 11:26	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	0	X D	32 - 140				04/24/15 16:00	04/30/15 11:26	100

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.1	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 21:37	1
Copper	1.4	J	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 21:37	1
Iron	100	U	100	16	ug/L		04/23/15 09:44	04/27/15 21:37	1
Manganese	530		5.0	1.1	ug/L		04/23/15 09:44	04/27/15 21:37	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 21:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	220	B	5.0	1.9	mg/L			04/24/15 23:11	1
Hardness as calcium carbonate	410		25	16	mg/L			04/29/15 11:50	1
Chloride	11		1.0	0.41	mg/L			04/22/15 14:37	1
Nitrate as N	1.7		0.10	0.035	mg/L			04/22/15 14:37	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW12

Lab Sample ID: 240-49640-1

Date Collected: 04/20/15 15:15

Matrix: Water

Date Received: 04/22/15 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	140		1.0	0.13	mg/L			04/22/15 14:37	1
Total Organic Carbon	0.95	J	1.0	0.26	mg/L			04/24/15 12:23	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW15

Lab Sample ID: 240-49640-2

Date Collected: 04/20/15 14:05

Matrix: Water

Date Received: 04/22/15 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	0.50	0.35	ug/L			04/24/15 11:24	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/24/15 11:24	1
Toluene	1.0	U	1.0	0.23	ug/L			04/24/15 11:24	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/24/15 11:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		63 - 129					04/24/15 11:24	1
4-Bromofluorobenzene (Surr)	78		66 - 120					04/24/15 11:24	1
Toluene-d8 (Surr)	88		74 - 120					04/24/15 11:24	1
Dibromofluoromethane (Surr)	84		75 - 121					04/24/15 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.060	ug/L		04/23/15 09:17	04/24/15 12:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 110				04/23/15 09:17	04/24/15 12:09	1
2-Fluorophenol (Surr)	44		15 - 110				04/23/15 09:17	04/24/15 12:09	1
2,4,6-Tribromophenol (Surr)	70		21 - 128				04/23/15 09:17	04/24/15 12:09	1
Nitrobenzene-d5 (Surr)	67		31 - 110				04/23/15 09:17	04/24/15 12:09	1
Phenol-d5 (Surr)	28		10 - 110				04/23/15 09:17	04/24/15 12:09	1
Terphenyl-d14 (Surr)	60		31 - 115				04/23/15 09:17	04/24/15 12:09	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.50	U	0.50	0.070	ug/L			04/23/15 16:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	114		66 - 132					04/23/15 16:27	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.094	U	0.094	0.015	ug/L		04/24/15 16:00	04/29/15 01:46	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	54		32 - 140				04/24/15 16:00	04/29/15 01:46	4

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.78	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 21:11	1
Copper	2.0	U	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 21:11	1
Iron	100	U	100	16	ug/L		04/23/15 09:44	04/27/15 21:11	1
Manganese	1.1	J	5.0	1.1	ug/L		04/23/15 09:44	04/27/15 21:11	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 21:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	190	B	5.0	1.9	mg/L			04/25/15 00:50	1
Hardness as calcium carbonate	270		25	16	mg/L			04/29/15 11:56	1
Chloride	11		1.0	0.41	mg/L			04/22/15 13:48	1
Nitrate as N	5.6		0.10	0.035	mg/L			04/22/15 13:48	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW15

Lab Sample ID: 240-49640-2

Date Collected: 04/20/15 14:05

Matrix: Water

Date Received: 04/22/15 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.7		1.0	0.13	mg/L			04/22/15 13:48	1
Total Organic Carbon	0.44	J	1.0	0.26	mg/L			04/24/15 11:41	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW22

Lab Sample ID: 240-49640-3

Date Collected: 04/21/15 09:55

Matrix: Water

Date Received: 04/22/15 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	0.50	0.35	ug/L			04/24/15 14:26	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/24/15 14:26	1
Toluene	1.0	U	1.0	0.23	ug/L			04/24/15 14:26	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/24/15 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		63 - 129					04/24/15 14:26	1
4-Bromofluorobenzene (Surr)	79		66 - 120					04/24/15 14:26	1
Toluene-d8 (Surr)	91		74 - 120					04/24/15 14:26	1
Dibromofluoromethane (Surr)	85		75 - 121					04/24/15 14:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.21	U	0.21	0.065	ug/L		04/24/15 07:21	04/27/15 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	48		29 - 110				04/24/15 07:21	04/27/15 16:53	1
2-Fluorophenol (Surr)	20		15 - 110				04/24/15 07:21	04/27/15 16:53	1
2,4,6-Tribromophenol (Surr)	58		21 - 128				04/24/15 07:21	04/27/15 16:53	1
Nitrobenzene-d5 (Surr)	47		31 - 110				04/24/15 07:21	04/27/15 16:53	1
Phenol-d5 (Surr)	11		10 - 110				04/24/15 07:21	04/27/15 16:53	1
Terphenyl-d14 (Surr)	55		31 - 115				04/24/15 07:21	04/27/15 16:53	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.50	U	0.50	0.070	ug/L			04/23/15 17:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	110		66 - 132					04/23/15 17:30	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.072	J	0.094	0.015	ug/L		04/24/15 16:00	04/29/15 03:08	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	54		32 - 140				04/24/15 16:00	04/29/15 03:08	4

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.60	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 21:41	1
Copper	2.8		2.0	0.75	ug/L		04/23/15 09:44	04/27/15 21:41	1
Iron	390	B	100	16	ug/L		04/23/15 09:44	04/27/15 21:41	1
Manganese	23		5.0	1.1	ug/L		04/23/15 09:44	04/27/15 21:41	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 21:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	42	B	5.0	1.9	mg/L			04/24/15 23:19	1
Hardness as calcium carbonate	57		5.0	3.1	mg/L			04/29/15 11:58	1
Chloride	1.9		1.0	0.41	mg/L			04/22/15 14:54	1
Nitrate as N	0.69		0.10	0.035	mg/L			04/22/15 14:54	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW22

Lab Sample ID: 240-49640-3

Date Collected: 04/21/15 09:55

Matrix: Water

Date Received: 04/22/15 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3.7		1.0	0.13	mg/L			04/22/15 14:54	1
Total Organic Carbon	0.57	J	1.0	0.26	mg/L			04/24/15 12:49	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW26

Lab Sample ID: 240-49640-4

Date Collected: 04/21/15 11:30

Matrix: Water

Date Received: 04/22/15 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	0.50	0.35	ug/L			04/24/15 14:48	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/24/15 14:48	1
Toluene	1.0	U	1.0	0.23	ug/L			04/24/15 14:48	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/24/15 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		63 - 129					04/24/15 14:48	1
4-Bromofluorobenzene (Surr)	83		66 - 120					04/24/15 14:48	1
Toluene-d8 (Surr)	90		74 - 120					04/24/15 14:48	1
Dibromofluoromethane (Surr)	88		75 - 121					04/24/15 14:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.060	ug/L		04/24/15 07:21	04/27/15 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		29 - 110				04/24/15 07:21	04/27/15 17:18	1
2-Fluorophenol (Surr)	35		15 - 110				04/24/15 07:21	04/27/15 17:18	1
2,4,6-Tribromophenol (Surr)	76		21 - 128				04/24/15 07:21	04/27/15 17:18	1
Nitrobenzene-d5 (Surr)	73		31 - 110				04/24/15 07:21	04/27/15 17:18	1
Phenol-d5 (Surr)	20		10 - 110				04/24/15 07:21	04/27/15 17:18	1
Terphenyl-d14 (Surr)	67		31 - 115				04/24/15 07:21	04/27/15 17:18	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.50	U	0.50	0.070	ug/L			04/23/15 17:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	107		66 - 132					04/23/15 17:45	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.094	U	0.094	0.015	ug/L		04/24/15 16:00	04/29/15 04:30	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	50		32 - 140				04/24/15 16:00	04/29/15 04:30	4

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 21:52	1
Copper	2.0	U	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 21:52	1
Iron	100	U	100	16	ug/L		04/23/15 09:44	04/27/15 21:52	1
Manganese	4.4	J	5.0	1.1	ug/L		04/23/15 09:44	04/27/15 21:52	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 21:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	160	B	5.0	1.9	mg/L			04/24/15 23:28	1
Hardness as calcium carbonate	240		25	16	mg/L			04/29/15 12:01	1
Chloride	16		1.0	0.41	mg/L			04/22/15 15:10	1
Nitrate as N	2.4		0.10	0.035	mg/L			04/22/15 15:10	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW26

Lab Sample ID: 240-49640-4

Date Collected: 04/21/15 11:30

Matrix: Water

Date Received: 04/22/15 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	82		1.0	0.13	mg/L			04/22/15 15:10	1
Total Organic Carbon	1.0	U	1.0	0.26	mg/L			04/24/15 13:14	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW262

Lab Sample ID: 240-49640-5

Date Collected: 04/21/15 11:40

Matrix: Water

Date Received: 04/22/15 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.060	ug/L		04/24/15 07:21	04/29/15 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		29 - 110				04/24/15 07:21	04/29/15 17:32	1
2-Fluorophenol (Surr)	38		15 - 110				04/24/15 07:21	04/29/15 17:32	1
2,4,6-Tribromophenol (Surr)	75		21 - 128				04/24/15 07:21	04/29/15 17:32	1
Nitrobenzene-d5 (Surr)	73		31 - 110				04/24/15 07:21	04/29/15 17:32	1
Phenol-d5 (Surr)	23		10 - 110				04/24/15 07:21	04/29/15 17:32	1
Terphenyl-d14 (Surr)	73		31 - 115				04/24/15 07:21	04/29/15 17:32	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.094	U	0.094	0.015	ug/L		04/24/15 16:00	04/29/15 05:11	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	51		32 - 140				04/24/15 16:00	04/29/15 05:11	4

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.76	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 21:56	1
Copper	2.0	U	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 21:56	1
Iron	100	U	100	16	ug/L		04/23/15 09:44	04/27/15 21:56	1
Manganese	5.0	U	5.0	1.1	ug/L		04/23/15 09:44	04/27/15 21:56	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 21:56	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MWB

Lab Sample ID: 240-49640-6

Date Collected: 04/21/15 12:00

Matrix: Water

Date Received: 04/22/15 09:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.098	J	0.19	0.060	ug/L		04/24/15 07:21	04/29/15 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		29 - 110				04/24/15 07:21	04/29/15 17:06	1
2-Fluorophenol (Surr)	32		15 - 110				04/24/15 07:21	04/29/15 17:06	1
2,4,6-Tribromophenol (Surr)	84		21 - 128				04/24/15 07:21	04/29/15 17:06	1
Nitrobenzene-d5 (Surr)	78		31 - 110				04/24/15 07:21	04/29/15 17:06	1
Phenol-d5 (Surr)	18		10 - 110				04/24/15 07:21	04/29/15 17:06	1
Terphenyl-d14 (Surr)	74		31 - 115				04/24/15 07:21	04/29/15 17:06	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.10	U	0.10	0.016	ug/L		04/24/15 16:00	04/29/15 05:52	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	50		32 - 140				04/24/15 16:00	04/29/15 05:52	4

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.30	J B	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 22:00	1
Copper	2.0	U	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 22:00	1
Iron	100	U	100	16	ug/L		04/23/15 09:44	04/27/15 22:00	1
Manganese	5.0	U	5.0	1.1	ug/L		04/23/15 09:44	04/27/15 22:00	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 22:00	1

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (63-129)	BFB (66-120)	TOL (74-120)	DBFM (75-121)
240-49640-1	W-150420-PS-MW12	86	80	91	86
240-49640-2	W-150420-PS-MW15	88	78	88	84
240-49640-2 MS	W-150420-PS-MW15	78	89	92	79
240-49640-2 MSD	W-150420-PS-MW15	80	92	92	83
240-49640-3	W-150421-PS-MW22	87	79	91	85
240-49640-4	W-150421-PS-MW26	90	83	90	88
LCS 240-177771/4	Lab Control Sample	86	97	96	88
MB 240-177771/6	Method Blank	86	77	87	84

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 TOL = Toluene-d8 (Surr)
 DBFM = Dibromofluoromethane (Surr)

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)
240-49640-1	W-150420-PS-MW12	68	48	86	78	31	65
240-49640-2	W-150420-PS-MW15	58	44	70	67	28	60
240-49640-2 MS	W-150420-PS-MW15	69	44	85	76	27	58
240-49640-2 MSD	W-150420-PS-MW15	75	51	89	78	34	70
240-49640-3	W-150421-PS-MW22	48	20	58	47	11	55
240-49640-4	W-150421-PS-MW26	72	35	76	73	20	67
240-49640-5	W-150421-PS-MW262	75	38	75	73	23	73
240-49640-6	W-150421-PS-MWB	78	32	84	78	18	74
LCS 240-177593/24-A	Lab Control Sample	76	62	92	80	46	84
LCS 240-177774/10-A	Lab Control Sample	80	56	88	77	36	89
MB 240-177593/23-A	Method Blank	75	71	85	82	55	89
MB 240-177774/9-A	Method Blank	73	70	77	79	51	93

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: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Trifluoroethl
		(66-132)
240-49640-1	W-150420-PS-MW12	113
240-49640-2	W-150420-PS-MW15	114

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Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Trifluoroeth (66-132)	
240-49640-2 MS	W-150420-PS-MW15	107	
240-49640-2 MSD	W-150420-PS-MW15	106	
240-49640-3	W-150421-PS-MW22	110	
240-49640-4	W-150421-PS-MW26	107	
LCS 240-177635/5	Lab Control Sample	117	
MB 240-177635/4	Method Blank	121	

Surrogate Legend

1,1,1-Trifluoroethane = 1,1,1-Trifluoroethane

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)
240-49640-1	W-150420-PS-MW12	0 X D	0 X D
240-49640-2	W-150420-PS-MW15	54	49
240-49640-2 MS	W-150420-PS-MW15	38	33
240-49640-2 MSD	W-150420-PS-MW15	54	48
240-49640-3	W-150421-PS-MW22	54	50
240-49640-4	W-150421-PS-MW26	50	45
240-49640-5	W-150421-PS-MW262	51	49
240-49640-6	W-150421-PS-MWB	50	46
LCS 180-139626/2-A	Lab Control Sample	72	75
MB 180-139626/1-A	Method Blank	61	59
MB 180-139626/1-A	Method Blank	53	46

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-177771/6

Matrix: Water

Analysis Batch: 177771

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	0.50	U	0.50	0.35	ug/L			04/24/15 09:55	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/24/15 09:55	1
Toluene	1.0	U	1.0	0.23	ug/L			04/24/15 09:55	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/24/15 09:55	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	86		63 - 129		04/24/15 09:55	1
4-Bromofluorobenzene (Surr)	77		66 - 120		04/24/15 09:55	1
Toluene-d8 (Surr)	87		74 - 120		04/24/15 09:55	1
Dibromofluoromethane (Surr)	84		75 - 121		04/24/15 09:55	1

Lab Sample ID: LCS 240-177771/4

Matrix: Water

Analysis Batch: 177771

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	10.0	9.56		ug/L		96	80 - 120
Ethylbenzene	10.0	9.98		ug/L		100	80 - 120
Toluene	10.0	9.87		ug/L		99	80 - 120
Xylenes, Total	20.0	19.9		ug/L		99	80 - 120
m-Xylene & p-Xylene	10.0	10.0		ug/L		100	80 - 120
o-Xylene	10.0	9.86		ug/L		99	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	86		63 - 129
4-Bromofluorobenzene (Surr)	97		66 - 120
Toluene-d8 (Surr)	96		74 - 120
Dibromofluoromethane (Surr)	88		75 - 121

Lab Sample ID: 240-49640-2 MS

Matrix: Water

Analysis Batch: 177771

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Benzene	0.50	U	10.0	8.91		ug/L		89	72 - 121
Ethylbenzene	1.0	U	10.0	9.49		ug/L		95	75 - 120
Toluene	1.0	U	10.0	9.44		ug/L		94	78 - 120
Xylenes, Total	2.0	U	20.0	18.8		ug/L		94	76 - 120
m-Xylene & p-Xylene	2.0	U	10.0	9.45		ug/L		94	75 - 120
o-Xylene	1.0	U	10.0	9.34		ug/L		93	76 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	89		66 - 120
Toluene-d8 (Surr)	92		74 - 120
Dibromofluoromethane (Surr)	79		75 - 121

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-49640-2 MSD

Matrix: Water

Analysis Batch: 177771

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Benzene	0.50	U	10.0	9.01		ug/L		90	72 - 121	1		30
Ethylbenzene	1.0	U	10.0	9.52		ug/L		95	75 - 120	0		30
Toluene	1.0	U	10.0	9.50		ug/L		95	78 - 120	1		30
Xylenes, Total	2.0	U	20.0	19.1		ug/L		95	76 - 120	1		30
m-Xylene & p-Xylene	2.0	U	10.0	9.57		ug/L		96	75 - 120	1		30
o-Xylene	1.0	U	10.0	9.50		ug/L		95	76 - 120	2		30
Surrogate	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	80		63 - 129									
4-Bromofluorobenzene (Surr)	92		66 - 120									
Toluene-d8 (Surr)	92		74 - 120									
Dibromofluoromethane (Surr)	83		75 - 121									

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

Lab Sample ID: MB 240-177593/23-A

Matrix: Water

Analysis Batch: 177789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177593

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	0.20	U	0.20	0.063	ug/L		04/23/15 09:17	04/24/15 09:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		29 - 110				04/23/15 09:17	04/24/15 09:37	1
2-Fluorophenol (Surr)	71		15 - 110				04/23/15 09:17	04/24/15 09:37	1
2,4,6-Tribromophenol (Surr)	85		21 - 128				04/23/15 09:17	04/24/15 09:37	1
Nitrobenzene-d5 (Surr)	82		31 - 110				04/23/15 09:17	04/24/15 09:37	1
Phenol-d5 (Surr)	55		10 - 110				04/23/15 09:17	04/24/15 09:37	1
Terphenyl-d14 (Surr)	89		31 - 115				04/23/15 09:17	04/24/15 09:37	1

Lab Sample ID: LCS 240-177593/24-A

Matrix: Water

Analysis Batch: 177789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177593

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Naphthalene	20.0	13.4		ug/L		67	52 - 120
Surrogate	%Recovery	Qualifier	Limits				
2-Fluorobiphenyl (Surr)	76		29 - 110				
2-Fluorophenol (Surr)	62		15 - 110				
2,4,6-Tribromophenol (Surr)	92		21 - 128				
Nitrobenzene-d5 (Surr)	80		31 - 110				
Phenol-d5 (Surr)	46		10 - 110				
Terphenyl-d14 (Surr)	84		31 - 115				

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

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

Lab Sample ID: 240-49640-2 MS

Matrix: Water

Analysis Batch: 177789

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Prep Batch: 177593

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Naphthalene	0.19	U	19.0	11.8		ug/L		62	35 - 110

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	69		29 - 110
2-Fluorophenol (Surr)	44		15 - 110
2,4,6-Tribromophenol (Surr)	85		21 - 128
Nitrobenzene-d5 (Surr)	76		31 - 110
Phenol-d5 (Surr)	27		10 - 110
Terphenyl-d14 (Surr)	58		31 - 115

Lab Sample ID: 240-49640-2 MSD

Matrix: Water

Analysis Batch: 177789

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Prep Batch: 177593

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Naphthalene	0.19	U	19.0	12.7		ug/L		67	35 - 110	8	58

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		29 - 110
2-Fluorophenol (Surr)	51		15 - 110
2,4,6-Tribromophenol (Surr)	89		21 - 128
Nitrobenzene-d5 (Surr)	78		31 - 110
Phenol-d5 (Surr)	34		10 - 110
Terphenyl-d14 (Surr)	70		31 - 115

Lab Sample ID: MB 240-177774/9-A

Matrix: Water

Analysis Batch: 178063

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.20	U	0.20	0.063	ug/L		04/24/15 07:21	04/27/15 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		29 - 110	04/24/15 07:21	04/27/15 11:19	1
2-Fluorophenol (Surr)	70		15 - 110	04/24/15 07:21	04/27/15 11:19	1
2,4,6-Tribromophenol (Surr)	77		21 - 128	04/24/15 07:21	04/27/15 11:19	1
Nitrobenzene-d5 (Surr)	79		31 - 110	04/24/15 07:21	04/27/15 11:19	1
Phenol-d5 (Surr)	51		10 - 110	04/24/15 07:21	04/27/15 11:19	1
Terphenyl-d14 (Surr)	93		31 - 115	04/24/15 07:21	04/27/15 11:19	1

Lab Sample ID: LCS 240-177774/10-A

Matrix: Water

Analysis Batch: 178063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177774

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Naphthalene	20.0	14.7		ug/L		73	52 - 120

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

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

Lab Sample ID: LCS 240-177774/10-A
Matrix: Water
Analysis Batch: 178063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177774

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		29 - 110
2-Fluorophenol (Surr)	56		15 - 110
2,4,6-Tribromophenol (Surr)	88		21 - 128
Nitrobenzene-d5 (Surr)	77		31 - 110
Phenol-d5 (Surr)	36		10 - 110
Terphenyl-d14 (Surr)	89		31 - 115

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 240-177635/4
Matrix: Water
Analysis Batch: 177635

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.50	U	0.50	0.070	ug/L			04/23/15 14:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1-Trifluoroethane	121		66 - 132		04/23/15 14:22	1

Lab Sample ID: LCS 240-177635/5
Matrix: Water
Analysis Batch: 177635

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	199	221		ug/L		111	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,1-Trifluoroethane	117		66 - 132

Lab Sample ID: 240-49640-2 MS
Matrix: Water
Analysis Batch: 177635

Client Sample ID: W-150420-PS-MW15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.50	U	199	215		ug/L		108	34 - 153

Surrogate	MS %Recovery	MS Qualifier	Limits
1,1,1-Trifluoroethane	107		66 - 132

Lab Sample ID: 240-49640-2 MSD
Matrix: Water
Analysis Batch: 177635

Client Sample ID: W-150420-PS-MW15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	0.50	U	199	217		ug/L		109	34 - 153	1	22

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 240-49640-2 MSD
Matrix: Water
Analysis Batch: 177635

Client Sample ID: W-150420-PS-MW15
Prep Type: Total/NA

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1,1,1-Trifluoroethane	106		66 - 132

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-139626/1-A
Matrix: Water
Analysis Batch: 139869

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139626

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	0.50	U	0.50	0.078	ug/L		04/24/15 16:00	04/29/15 00:44	20
Surrogate	MB		Limits			Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier								
2,4-Dichlorophenylacetic acid	61		32 - 140			04/24/15 16:00	04/29/15 00:44	20	

Lab Sample ID: MB 180-139626/1-A
Matrix: Water
Analysis Batch: 139869

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139626

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	0.10	U	0.10	0.016	ug/L		04/24/15 16:00	04/29/15 05:31	4
Surrogate	MB		Limits			Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier								
2,4-Dichlorophenylacetic acid	53		32 - 140			04/24/15 16:00	04/29/15 05:31	4	

Lab Sample ID: LCS 180-139626/2-A
Matrix: Water
Analysis Batch: 139869

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139626

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Pentachlorophenol	0.500	0.506		ug/L		101	40 - 140
Surrogate	LCS		Limits			%Rec	
%Recovery	Qualifier						
2,4-Dichlorophenylacetic acid	75		32 - 140				

Lab Sample ID: 240-49640-2 MS
Matrix: Water
Analysis Batch: 139869

Client Sample ID: W-150420-PS-MW15
Prep Type: Total/NA
Prep Batch: 139626

Analyte	Sample		Spike Added	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Pentachlorophenol	0.094	U	0.472	0.300		ug/L		64	40 - 140
Surrogate	MS		Limits			%Rec			
%Recovery	Qualifier								
2,4-Dichlorophenylacetic acid	38		32 - 140						

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

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

Lab Sample ID: 240-49640-2 MSD

Matrix: Water

Analysis Batch: 139869

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Prep Batch: 139626

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Pentachlorophenol	0.094	U	0.472	0.347		ug/L		74	40 - 140	14	30
Surrogate	%Recovery	Qualifier	Limits								
2,4-Dichlorophenylacetic acid	54		32 - 140								

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-177603/1-A

Matrix: Water

Analysis Batch: 178191

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 177603

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	1.01	J	5.0	0.18	ug/L		04/23/15 09:44	04/27/15 20:41	1
Copper	2.0	U	2.0	0.75	ug/L		04/23/15 09:44	04/27/15 20:41	1
Iron	20.3	J	100	16	ug/L		04/23/15 09:44	04/27/15 20:41	1
Manganese	5.0	U	5.0	1.1	ug/L		04/23/15 09:44	04/27/15 20:41	1
Zinc	20	U	20	7.3	ug/L		04/23/15 09:44	04/27/15 20:41	1

Lab Sample ID: LCS 240-177603/2-A

Matrix: Water

Analysis Batch: 178191

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 177603

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Arsenic	1000	864		ug/L		86	80 - 120
Copper	1000	929		ug/L		93	80 - 120
Iron	10000	9710		ug/L		97	80 - 120
Manganese	1000	927		ug/L		93	80 - 120
Zinc	1000	902		ug/L		90	80 - 120

Lab Sample ID: 240-49640-2 MS

Matrix: Water

Analysis Batch: 178191

Client Sample ID: W-150420-PS-MW15

Prep Type: Dissolved

Prep Batch: 177603

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				Limits
Arsenic	0.78	J B	1000	923		ug/L		92	75 - 125
Copper	2.0	U	1000	980		ug/L		98	75 - 125
Iron	100	U	10000	10400		ug/L		104	75 - 125
Manganese	1.1	J	1000	994		ug/L		99	75 - 125
Zinc	20	U	1000	927		ug/L		93	75 - 125

Lab Sample ID: 240-49640-2 MSD

Matrix: Water

Analysis Batch: 178191

Client Sample ID: W-150420-PS-MW15

Prep Type: Dissolved

Prep Batch: 177603

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Arsenic	0.78	J B	1000	921		ug/L		92	75 - 125	0	20
Copper	2.0	U	1000	987		ug/L		99	75 - 125	1	20
Iron	100	U	10000	10600		ug/L		106	75 - 125	2	20

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-49640-2 MSD
 Matrix: Water
 Analysis Batch: 178191

Client Sample ID: W-150420-PS-MW15
 Prep Type: Dissolved
 Prep Batch: 177603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
Manganese	1.1	J	1000	1010		ug/L		101	75 - 125	2	20	
Zinc	20	U	1000	924		ug/L		92	75 - 125	0	20	

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-177984/32
 Matrix: Water
 Analysis Batch: 177984

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Alkalinity	2.91	J	5.0	1.9	mg/L			04/24/15 20:45	1

Lab Sample ID: LCS 240-177984/33
 Matrix: Water
 Analysis Batch: 177984

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
Alkalinity	354	327		mg/L		92	90 - 127	

Method: 2340C-1997 - Hardness, Total

Lab Sample ID: MB 240-178496/1
 Matrix: Water
 Analysis Batch: 178496

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hardness as calcium carbonate	5.0	U	5.0	3.1	mg/L			04/29/15 11:45	1

Lab Sample ID: LCS 240-178496/2
 Matrix: Water
 Analysis Batch: 178496

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
Hardness as calcium carbonate	312	296		mg/L		95	88 - 110	

Lab Sample ID: 240-49640-1 DU
 Matrix: Water
 Analysis Batch: 178496

Client Sample ID: W-150420-PS-MW12
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Hardness as calcium carbonate	410		424		mg/L		2	20

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-177459/15

Matrix: Water

Analysis Batch: 177459

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	1.0	U	1.0	0.41	mg/L			04/22/15 17:06	1
Sulfate	1.0	U	1.0	0.13	mg/L			04/22/15 17:06	1

Lab Sample ID: LCS 240-177459/16

Matrix: Water

Analysis Batch: 177459

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Chloride	50.0	50.2		mg/L		100	90 - 110
Sulfate	50.0	49.0		mg/L		98	90 - 110

Lab Sample ID: 240-49640-2 MS

Matrix: Water

Analysis Batch: 177459

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Chloride	11		50.0	66.3		mg/L		112	80 - 120
Sulfate	5.7		50.0	58.4		mg/L		105	80 - 120

Lab Sample ID: 240-49640-2 MSD

Matrix: Water

Analysis Batch: 177459

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
				Result	Qualifier					RPD	Limit
Chloride	11		50.0	64.7		mg/L		108	80 - 120	2	20
Sulfate	5.7		50.0	57.3		mg/L		103	80 - 120	2	20

Lab Sample ID: MB 240-177460/15

Matrix: Water

Analysis Batch: 177460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	0.10	U	0.10	0.035	mg/L			04/22/15 17:06	1

Lab Sample ID: LCS 240-177460/16

Matrix: Water

Analysis Batch: 177460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Nitrate as N	2.50	2.57		mg/L		103	90 - 110

Lab Sample ID: 240-49640-2 MS

Matrix: Water

Analysis Batch: 177460

Client Sample ID: W-150420-PS-MW15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Nitrate as N	5.6		2.50	8.41		mg/L		110	80 - 120

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-49640-2 MSD
 Matrix: Water
 Analysis Batch: 177460

Client Sample ID: W-150420-PS-MW15
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.6		2.50	8.40	H	mg/L		110	80 - 120	0	20

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 240-177943/4
 Matrix: Water
 Analysis Batch: 177943

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.26	mg/L			04/24/15 11:18	1

Lab Sample ID: LCS 240-177943/6
 Matrix: Water
 Analysis Batch: 177943

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	45.3	46.7		mg/L		103	88 - 115

Lab Sample ID: LLCS 240-177943/5
 Matrix: Water
 Analysis Batch: 177943

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.38	5.45		mg/L		101	88 - 115

Lab Sample ID: 240-49640-2 MS
 Matrix: Water
 Analysis Batch: 177943

Client Sample ID: W-150420-PS-MW15
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.44	J	25.0	27.8		mg/L		109	72 - 136

Lab Sample ID: 240-49640-2 MSD
 Matrix: Water
 Analysis Batch: 177943

Client Sample ID: W-150420-PS-MW15
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.44	J	25.0	27.2		mg/L		107	72 - 136	2	20

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

GC/MS VOA

Analysis Batch: 177771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	8260B	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	8260B	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	8260B	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	8260B	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	8260B	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	8260B	
LCS 240-177771/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-177771/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 177593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	3510C	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	3510C	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	3510C	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	3510C	
LCS 240-177593/24-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-177593/23-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 177774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-3	W-150421-PS-MW22	Total/NA	Water	3510C	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	3510C	
240-49640-5	W-150421-PS-MW262	Total/NA	Water	3510C	
240-49640-6	W-150421-PS-MWB	Total/NA	Water	3510C	
LCS 240-177774/10-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-177774/9-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 177789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	8270C	177593
240-49640-2	W-150420-PS-MW15	Total/NA	Water	8270C	177593
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	8270C	177593
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	8270C	177593
LCS 240-177593/24-A	Lab Control Sample	Total/NA	Water	8270C	177593
MB 240-177593/23-A	Method Blank	Total/NA	Water	8270C	177593

Analysis Batch: 178063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-3	W-150421-PS-MW22	Total/NA	Water	8270C	177774
240-49640-4	W-150421-PS-MW26	Total/NA	Water	8270C	177774
LCS 240-177774/10-A	Lab Control Sample	Total/NA	Water	8270C	177774
MB 240-177774/9-A	Method Blank	Total/NA	Water	8270C	177774

Analysis Batch: 178445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-5	W-150421-PS-MW262	Total/NA	Water	8270C	177774
240-49640-6	W-150421-PS-MWB	Total/NA	Water	8270C	177774

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

GC VOA

Analysis Batch: 177635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	RSK-175	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	RSK-175	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	RSK-175	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	RSK-175	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	RSK-175	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	RSK-175	
LCS 240-177635/5	Lab Control Sample	Total/NA	Water	RSK-175	
MB 240-177635/4	Method Blank	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 139626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	8151A	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	8151A	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	8151A	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	8151A	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	8151A	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	8151A	
240-49640-5	W-150421-PS-MW262	Total/NA	Water	8151A	
240-49640-6	W-150421-PS-MWB	Total/NA	Water	8151A	
LCS 180-139626/2-A	Lab Control Sample	Total/NA	Water	8151A	
MB 180-139626/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 139869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-2	W-150420-PS-MW15	Total/NA	Water	8151A	139626
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	8151A	139626
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	8151A	139626
240-49640-3	W-150421-PS-MW22	Total/NA	Water	8151A	139626
240-49640-4	W-150421-PS-MW26	Total/NA	Water	8151A	139626
240-49640-5	W-150421-PS-MW262	Total/NA	Water	8151A	139626
240-49640-6	W-150421-PS-MWB	Total/NA	Water	8151A	139626
LCS 180-139626/2-A	Lab Control Sample	Total/NA	Water	8151A	139626
MB 180-139626/1-A	Method Blank	Total/NA	Water	8151A	139626
MB 180-139626/1-A	Method Blank	Total/NA	Water	8151A	139626

Analysis Batch: 140144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	8151A	139626

Metals

Prep Batch: 177603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Dissolved	Water	3005A	
240-49640-2	W-150420-PS-MW15	Dissolved	Water	3005A	
240-49640-2 MS	W-150420-PS-MW15	Dissolved	Water	3005A	
240-49640-2 MSD	W-150420-PS-MW15	Dissolved	Water	3005A	
240-49640-3	W-150421-PS-MW22	Dissolved	Water	3005A	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Metals (Continued)

Prep Batch: 177603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-4	W-150421-PS-MW26	Dissolved	Water	3005A	
240-49640-5	W-150421-PS-MW262	Dissolved	Water	3005A	
240-49640-6	W-150421-PS-MWB	Dissolved	Water	3005A	
LCS 240-177603/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-177603/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 178191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Dissolved	Water	6020	177603
240-49640-2	W-150420-PS-MW15	Dissolved	Water	6020	177603
240-49640-2 MS	W-150420-PS-MW15	Dissolved	Water	6020	177603
240-49640-2 MSD	W-150420-PS-MW15	Dissolved	Water	6020	177603
240-49640-3	W-150421-PS-MW22	Dissolved	Water	6020	177603
240-49640-4	W-150421-PS-MW26	Dissolved	Water	6020	177603
240-49640-5	W-150421-PS-MW262	Dissolved	Water	6020	177603
240-49640-6	W-150421-PS-MWB	Dissolved	Water	6020	177603
LCS 240-177603/2-A	Lab Control Sample	Total Recoverable	Water	6020	177603
MB 240-177603/1-A	Method Blank	Total Recoverable	Water	6020	177603

General Chemistry

Analysis Batch: 177459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	300.0	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	300.0	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	300.0	
LCS 240-177459/16	Lab Control Sample	Total/NA	Water	300.0	
MB 240-177459/15	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 177460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	300.0	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	300.0	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	300.0	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	300.0	
LCS 240-177460/16	Lab Control Sample	Total/NA	Water	300.0	
MB 240-177460/15	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 177943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	9060	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	9060	
240-49640-2 MS	W-150420-PS-MW15	Total/NA	Water	9060	
240-49640-2 MSD	W-150420-PS-MW15	Total/NA	Water	9060	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	9060	

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

General Chemistry (Continued)

Analysis Batch: 177943 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-4	W-150421-PS-MW26	Total/NA	Water	9060	
LCS 240-177943/6	Lab Control Sample	Total/NA	Water	9060	
LLCS 240-177943/5	Lab Control Sample	Total/NA	Water	9060	
MB 240-177943/4	Method Blank	Total/NA	Water	9060	

Analysis Batch: 177984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	2320B-1997	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	2320B-1997	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	2320B-1997	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	2320B-1997	
LCS 240-177984/33	Lab Control Sample	Total/NA	Water	2320B-1997	
MB 240-177984/32	Method Blank	Total/NA	Water	2320B-1997	

Analysis Batch: 178496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49640-1	W-150420-PS-MW12	Total/NA	Water	2340C-1997	
240-49640-1 DU	W-150420-PS-MW12	Total/NA	Water	2340C-1997	
240-49640-2	W-150420-PS-MW15	Total/NA	Water	2340C-1997	
240-49640-3	W-150421-PS-MW22	Total/NA	Water	2340C-1997	
240-49640-4	W-150421-PS-MW26	Total/NA	Water	2340C-1997	
LCS 240-178496/2	Lab Control Sample	Total/NA	Water	2340C-1997	
MB 240-178496/1	Method Blank	Total/NA	Water	2340C-1997	

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150420-PS-MW12

Lab Sample ID: 240-49640-1

Date Collected: 04/20/15 15:15

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177771	04/24/15 14:04	RJQ	TAL CAN
Total/NA	Prep	3510C			177593	04/23/15 09:17	JDR	TAL CAN
Total/NA	Analysis	8270C		1	177789	04/24/15 11:44	JMG	TAL CAN
Total/NA	Analysis	RSK-175		1	177635	04/23/15 16:11	BPM	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		100	140144	04/30/15 11:26	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 21:37	AS1	TAL CAN
Total/NA	Analysis	2320B-1997		1	177984	04/24/15 23:11	LCN	TAL CAN
Total/NA	Analysis	2340C-1997		1	178496	04/29/15 11:50	JAK	TAL CAN
Total/NA	Analysis	300.0		1	177459	04/22/15 14:37	LKG	TAL CAN
Total/NA	Analysis	300.0		1	177460	04/22/15 14:37	LKG	TAL CAN
Total/NA	Analysis	9060		1	177943	04/24/15 12:23	TPH	TAL CAN

Client Sample ID: W-150420-PS-MW15

Lab Sample ID: 240-49640-2

Date Collected: 04/20/15 14:05

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177771	04/24/15 11:24	RJQ	TAL CAN
Total/NA	Prep	3510C			177593	04/23/15 09:17	JDR	TAL CAN
Total/NA	Analysis	8270C		1	177789	04/24/15 12:09	JMG	TAL CAN
Total/NA	Analysis	RSK-175		1	177635	04/23/15 16:27	BPM	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139869	04/29/15 01:46	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 21:11	AS1	TAL CAN
Total/NA	Analysis	2320B-1997		1	177984	04/25/15 00:50	LCN	TAL CAN
Total/NA	Analysis	2340C-1997		1	178496	04/29/15 11:56	JAK	TAL CAN
Total/NA	Analysis	300.0		1	177459	04/22/15 13:48	LKG	TAL CAN
Total/NA	Analysis	300.0		1	177460	04/22/15 13:48	LKG	TAL CAN
Total/NA	Analysis	9060		1	177943	04/24/15 11:41	TPH	TAL CAN

Client Sample ID: W-150421-PS-MW22

Lab Sample ID: 240-49640-3

Date Collected: 04/21/15 09:55

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177771	04/24/15 14:26	RJQ	TAL CAN
Total/NA	Prep	3510C			177774	04/24/15 07:21	CSC	TAL CAN
Total/NA	Analysis	8270C		1	178063	04/27/15 16:53	JMG	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
 Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MW22

Lab Sample ID: 240-49640-3

Date Collected: 04/21/15 09:55

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	177635	04/23/15 17:30	BPM	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139869	04/29/15 03:08	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 21:41	AS1	TAL CAN
Total/NA	Analysis	2320B-1997		1	177984	04/24/15 23:19	LCN	TAL CAN
Total/NA	Analysis	2340C-1997		1	178496	04/29/15 11:58	JAK	TAL CAN
Total/NA	Analysis	300.0		1	177459	04/22/15 14:54	LKG	TAL CAN
Total/NA	Analysis	300.0		1	177460	04/22/15 14:54	LKG	TAL CAN
Total/NA	Analysis	9060		1	177943	04/24/15 12:49	TPH	TAL CAN

Client Sample ID: W-150421-PS-MW26

Lab Sample ID: 240-49640-4

Date Collected: 04/21/15 11:30

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177771	04/24/15 14:48	RJQ	TAL CAN
Total/NA	Prep	3510C			177774	04/24/15 07:21	CSC	TAL CAN
Total/NA	Analysis	8270C		1	178063	04/27/15 17:18	JMG	TAL CAN
Total/NA	Analysis	RSK-175		1	177635	04/23/15 17:45	BPM	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139869	04/29/15 04:30	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 21:52	AS1	TAL CAN
Total/NA	Analysis	2320B-1997		1	177984	04/24/15 23:28	LCN	TAL CAN
Total/NA	Analysis	2340C-1997		1	178496	04/29/15 12:01	JAK	TAL CAN
Total/NA	Analysis	300.0		1	177459	04/22/15 15:10	LKG	TAL CAN
Total/NA	Analysis	300.0		1	177460	04/22/15 15:10	LKG	TAL CAN
Total/NA	Analysis	9060		1	177943	04/24/15 13:14	TPH	TAL CAN

Client Sample ID: W-150421-PS-MW262

Lab Sample ID: 240-49640-5

Date Collected: 04/21/15 11:40

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			177774	04/24/15 07:21	CSC	TAL CAN
Total/NA	Analysis	8270C		1	178445	04/29/15 17:32	JMG	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139869	04/29/15 05:11	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 21:56	AS1	TAL CAN

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Client Sample ID: W-150421-PS-MWB

Lab Sample ID: 240-49640-6

Date Collected: 04/21/15 12:00

Matrix: Water

Date Received: 04/22/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			177774	04/24/15 07:21	CSC	TAL CAN
Total/NA	Analysis	8270C		1	178445	04/29/15 17:06	JMG	TAL CAN
Total/NA	Prep	8151A			139626	04/24/15 16:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139869	04/29/15 05:52	JMO	TAL PIT
Dissolved	Prep	3005A			177603	04/23/15 09:44	WAL	TAL CAN
Dissolved	Analysis	6020		1	178191	04/27/15 22:00	AS1	TAL CAN

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: Conestoga-Rovers & Associates, Inc.
Project/Site: 86165-01-13, Penta Wood

TestAmerica Job ID: 240-49640-1

Laboratory: TestAmerica Canton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
RSK-175		Water	Methane

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	08-31-15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-49640 Chain of Custody

TestAmerica Canton
4101 Shuffel Street, N. H.

4.0 / C4.5

2.8 / C4.5

Chain of Custody Record

3.2 / C3.7

4.2 / C4.7

031749

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:

ganderson@craworld.com

1.8 / C2.3

Client Contact		Project Manager: Grant Anderson		Site Contact: D. Heiler		Date: 4-21-15		COC No:	
Company Name: CRA, Inc.		Tel/Fax:		Lab Contact:		Carrier: Fed Ex		1 of 1 COCs	
Address: 1801 Old Hwy 8		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) PCP-315 Naphthalene-8270 TOC Methane Hardness Metals (As, Cu, Fe, Mn, Zn) Aik Nitrate P1, 504 BTEX		Sampler:		For Lab Use Only:	
City/State/Zip: St Paul, MN 55112		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below				Walk-in Client:		Lab Sampling:	
Phone: 651-639-0513		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job / SDG No.:			
Project Name: 086165-01-01		STANDARD				Sample Specific Notes:			
Site: Penta Wood									
PO#									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.			
W-150420-PS-MW12		4-20-15	1515	G	W	14	X	X	X
W-150420-PS-MW15		↓	1405	G	W	29	X	X	X
W-150421-PS-MW22		4-21-15	0955	G	W	14	X	X	X
W-150421-PS-MW26		↓	1130	G	W	14	X	X	X
W-150421-PS-MW262		↓	1140	G	W	5	X	X	X
W-150421-PS-MWB		↓	1200	G	W	5	X	X	X
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									
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: CRA		Date/Time: 4/21/15 @ 1400		Received by: [Signature]		Company: TA	
Relinquished by:						Received by:		Date/Time: 4-22-15 940	
Relinquished by:						Received in Laboratory by:		Date/Time:	

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5/11/2015

Canton Facility

Client CZA Site Name _____

Cooler unpacked by: _____

Cooler Received on 4-22-15 Opened on 4-22-15

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: Water Blue Ice _____ Dry Ice _____ Water _____ None _____

1. Cooler temperature upon receipt

IR GUN# A (CF +4.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °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 -1.2 °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)? 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 sampler(s) 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# HC425511

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

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): _____

