Rec 4/22/15
Put on Berrts
5/6/15
(99)

Richard, Philip E - DNR

From:	Ree, Timothy <tree@craworld.com>
Sent:	Wednesday, April 22, 2015 8:45 AM
To:	Richard, Philip E - DNR; Robinson, John H - DNR
Cc:	Frehner, Ron; Sandberg, Brian; Storlie, Pete
Subject:	Penta Wood - WPDES Compliance Sampling 4/6/2015 and 4/16/2015 ~COR-086165~
Attachments:	Lab Report-240-49061-1-086165-01-09-2015-04-21.pdf; Lab Report-240-49237-1-086165-01-07-2015-04-21.pdf; Lab Report-240-49466-1-086165-01-07-2015-04-21.pdf
Importance:	High

Phil/John,

Please find attached copies of the laboratory reports for the WPDES compliance sampling conducted at the Penta Wood site on 4/6/2015 and 4/16/2015. PCP was detected at a concentration of 0.094 ug/L (estimated) on 4/6/2015, which meets the permit limit of 0.1 ug/L. PCP was detected at a concentration of 0.12 ug/L on 4/16/2015, which exceeds the permit limit of 0.1 ug/L. This represents the first sample collected that exceeds the permit limit since implementing the modified pumping strategy on 2/13/2015. However, this result does not represent a noncompliance of the substantive WPDES permit requirements since additional weekly effluent sampling is required to determine the monthly average. Based on the two effluent samples collected in April, the average effluent PCP concentration is 0.107 ug/L. All other parameters met the permit criteria.

Effluent PCP concentrations have been slightly increasing for the past month, but this is the first sample that exceeded the criteria. It has been about 3 months since a carbon change-out was completed and the system was restarted on 1/19/2015.

After the pumping modification, PCP was detected in the influent samples at 480 ug/L in February and 390 ug/L in March. PCP was detected at a significantly increased concentration of 1,500 ug/L in the influent sample on 4/6/2015. CRA believes that we are now extracting emulsified LNAPL from at least one of the extraction wells and that is the reason the effluent exceeded the permit limit.

PCP was detected at 0.016 ug/L (estimated) in the sample collected between the carbon units on 4/10/2015.

CRA recommends that additional samples for PCP be collected of total influent, individual influent at the five active extraction wells, effluent, and between the carbon units to further evaluate whether an adjustment of the current pumping strategy can be made to reduce the influent concentrations and thereby improve treatment to meet the permit limits and still maintain hydraulic capture of the plume area. The analyses would be expedited in an attempt to make a pumping adjustment and collect a subsequent effluent sample before the end of the month. If results are favorable, the monthly average would meet the effluent permit limit.

As we have done in the past, the costs for these additional analyses would be billed under the contract unit prices for expedited PCP analysis. CRA estimates that the additional costs for this sampling and shipping would be less than $1,500.

If you agree with this recommendation, please update Kathy Bartilson (WDNR) and Linda Martin (USEPA) and request their approval. We are prepared to collect these samples as soon as we receive approval.

Should you have questions, please do not hesitate to contact me.

Regards,

Tim Ree
Conestoga-Rovers & Associates (CRA)
1801 Old Highway 8 NW, Suite 114
St Paul, MN 55112

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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: 240-49061-1
Client Project/Site: 86165-01-01, Penta Wood

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

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
4/21/2015 1:54:15 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@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.

Table of Contents

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.

GC Semi VOA

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

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
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)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-49061-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 86165-01-01, Penta Wood

Report Number: 240-49061-1

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 04/08/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-150406-PS-QE (240-49061-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/10/2015.

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.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-150406-PS-QE (240-49061-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared and analyzed on 04/09/2015.

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).

Job ID: 240-49061-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

WISCONSIN DRO

Sample W-150406-PS-QE (240-49061-1) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 04/09/2015 and analyzed on 04/10/2015.

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-150406-PS-QE (240-49061-1) and W-150406-PS-MI (240-49061-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 04/11/2015 and analyzed on 04/13/2015 and 04/14/2015.

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.

Sample W-150406-PS-MI (240-49061-2)[4000X] 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) associated with batch 138236.

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

TOTAL RECOVERABLE METALS (ICPMS)

Sample W-150406-PS-QE (240-49061-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/09/2015 and analyzed on 04/13/2015.

Arsenic was detected in method blank MB 240-175729/1-A 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.

ANIONS

Sample W-150406-PS-QE (240-49061-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/13/2015.

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49061-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
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
8290	Dioxins/Furans, HRGC/HRMS (8290)	SW846	TAL KNX
6020	Metals (ICP/MS)	SW846	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN

Protocol References:

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

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 KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49061-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-49061-1	W-150406-PS-QE	Water	04/06/15 14:15	04/08/15 09:20
240-49061-2	W-150406-PS-MI	Water	04/06/15 14:30	04/08/15 09:20

Detection Summary

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

TestAmerica Job ID: 240-49061-1

Client Sample ID: W-150406-PS-QE — Lab Sample ID: 240-49061-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.094	J	0.097	0.015	ug/L	4		8151A	Total/NA
Arsenic	0.72	J B	5.0	0.18	ug/L	1		6020	Total Recoverable
Manganese	500		5.0	1.1	ug/L	1		6020	Total Recoverable
Zinc	12	J	20	7.3	ug/L	1		6020	Total Recoverable
Chloride	15		1.0	0.41	mg/L	1		300.0	Total/NA

Client Sample ID: W-150406-PS-MI — Lab Sample ID: 240-49061-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	1500		95	15	ug/L	4000		8151A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-150406-PS-QE

Date Collected: 04/06/15 14:15
Date Received: 04/08/15 09:20

Lab Sample ID: 240-49061-1

Matrix: Water

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			04/10/15 17:00	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/10/15 17:00	1
Toluene	1.0	U	1.0	0.23	ug/L			04/10/15 17:00	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/10/15 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*04/10/15 17:00*	*1*
4-Bromofluorobenzene (Surr)	*97*		*66 - 120*		*04/10/15 17:00*	*1*
Toluene-d8 (Surr)	*96*		*74 - 120*		*04/10/15 17:00*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 121*		*04/10/15 17:00*	*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		04/09/15 05:52	04/09/15 15:34	1
Phenol	0.95	U	0.95	0.57	ug/L		04/09/15 05:52	04/09/15 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*29 - 110*	*04/09/15 05:52*	*04/09/15 15:34*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*04/09/15 05:52*	*04/09/15 15:34*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*21 - 128*	*04/09/15 05:52*	*04/09/15 15:34*	*1*
Nitrobenzene-d5 (Surr)	*80*		*31 - 110*	*04/09/15 05:52*	*04/09/15 15:34*	*1*
Phenol-d5 (Surr)	*26*		*10 - 110*	*04/09/15 05:52*	*04/09/15 15:34*	*1*
Terphenyl-d14 (Surr)	*79*		*31 - 115*	*04/09/15 05:52*	*04/09/15 15:34*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	**0.094**	**J**	0.097	0.015	ug/L		04/11/15 14:00	04/13/15 14:18	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*79*		*32 - 140*	*04/11/15 14:00*	*04/13/15 14:18*	*4*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	0.10	U	0.10	0.082	mg/L		04/09/15 05:42	04/10/15 19:19	1

Method: 8290 - Dioxins/Furans, HRGC/HRMS (8290)

Analyte	Result	Qualifier	ML	EDL	TEF	TEQ	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		9.5	1.5	1		pg/L		04/13/15 11:00	04/15/15 23:38	1
Total TEQ ***(EPA 1989)***						**0.00**					

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*86*		*40 - 135*	*04/13/15 11:00*	*04/15/15 23:38*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.72**	**J B**	5.0	0.18	ug/L		04/09/15 09:16	04/13/15 14:23	1
Copper	2.0	U	2.0	0.75	ug/L		04/09/15 09:16	04/13/15 14:23	1
Iron	100	U	100	16	ug/L		04/09/15 09:16	04/13/15 14:23	1
Manganese	**500**		5.0	1.1	ug/L		04/09/15 09:16	04/13/15 14:23	1
Zinc	**12**	**J**	20	7.3	ug/L		04/09/15 09:16	04/13/15 14:23	1

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

TestAmerica Job ID: 240-49061-1

Client Sample ID: W-150406-PS-QE
Date Collected: 04/06/15 14:15
Date Received: 04/08/15 09:20

Lab Sample ID: 240-49061-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		1.0	0.41	mg/L			04/13/15 21:02	1

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

TestAmerica Job ID: 240-49061-1

Client Sample ID: W-150406-PS-MI
Date Collected: 04/06/15 14:30
Date Received: 04/08/15 09:20

Lab Sample ID: 240-49061-2
Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1500		95	15	ug/L		04/11/15 14:00	04/14/15 11:00	4000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*0*	*X D*	*32 - 140*	*04/11/15 14:00*	*04/14/15 11:00*	*4000*

Surrogate Summary

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

TestAmerica Job ID: 240-49061-1

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-120)	(74-120)	(75-121)
240-49061-1	W-150406-PS-QE	99	97	96	97
LCS 240-175903/4	Lab Control Sample	98	100	97	96
MB 240-175903/6	Method Blank	99	93	93	96

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**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(29-110)	(15-110)	(21-128)	(31-110)	(10-110)	(31-115)
240-49061-1	W-150406-PS-QE	84	44	91	80	26	79
LCS 240-175675/10-A	Lab Control Sample	79	63	91	99	49	80
MB 240-175675/9-A	Method Blank	79	62	87	73	50	81

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(32-140)	(32-140)
240-49061-1	W-150406-PS-QE	79	63
240-49061-2	W-150406-PS-MI	0 X D	0 X D
LCS 180-138236/2-A	Lab Control Sample	82	71
LCSD 180-138236/3-A	Lab Control Sample Dup	66	59
MB 180-138236/1-A	Method Blank	62	50

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Internal Standards Summary

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

TestAmerica Job ID: 240-49061-1

Method: 8290 - Dioxins/Furans, HRGC/HRMS (8290)

Matrix: Water **Prep Type: Total**

		Percent Internal Standard Recovery (Acceptance Limits)
		TCDD
Lab Sample ID	Client Sample ID	(40-135)
240-49061-1	W-150406-PS-QE	86
H5D130000018B	Method Blank	80
H5D130000018C	Lab Control Sample	83

Internal Standard Legend

TCDD = 13C-2,3,7,8-TCDD

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

Lab Sample ID: MB 240-175903/6
Matrix: Water
Analysis Batch: 175903

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.50	U	0.50	0.35	ug/L			04/10/15 10:12	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			04/10/15 10:12	1
Toluene	1.0	U	1.0	0.23	ug/L			04/10/15 10:12	1
Xylenes, Total	2.0	U	2.0	0.52	ug/L			04/10/15 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*04/10/15 10:12*	*1*
4-Bromofluorobenzene (Surr)	*93*		*66 - 120*		*04/10/15 10:12*	*1*
Toluene-d8 (Surr)	*93*		*74 - 120*		*04/10/15 10:12*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 121*		*04/10/15 10:12*	*1*

Lab Sample ID: LCS 240-175903/4
Matrix: Water
Analysis Batch: 175903

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.65		ug/L		97	80 - 120
Ethylbenzene	10.0	9.59		ug/L		96	80 - 120
Toluene	10.0	9.44		ug/L		94	80 - 120
Xylenes, Total	20.0	19.4		ug/L		97	80 - 120
m-Xylene & p-Xylene	10.0	9.58		ug/L		96	80 - 120
o-Xylene	10.0	9.80		ug/L		98	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*63 - 129*
4-Bromofluorobenzene (Surr)	*100*		*66 - 120*
Toluene-d8 (Surr)	*97*		*74 - 120*
Dibromofluoromethane (Surr)	*96*		*75 - 121*

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

Lab Sample ID: MB 240-175675/9-A
Matrix: Water
Analysis Batch: 175697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 175675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.20	U	0.20	0.063	ug/L		04/09/15 05:52	04/09/15 08:53	1
Phenol	1.0	U	1.0	0.60	ug/L		04/09/15 05:52	04/09/15 08:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*29 - 110*	*04/09/15 05:52*	*04/09/15 08:53*	*1*
2-Fluorophenol (Surr)	*62*		*15 - 110*	*04/09/15 05:52*	*04/09/15 08:53*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*21 - 128*	*04/09/15 05:52*	*04/09/15 08:53*	*1*
Nitrobenzene-d5 (Surr)	*73*		*31 - 110*	*04/09/15 05:52*	*04/09/15 08:53*	*1*
Phenol-d5 (Surr)	*50*		*10 - 110*	*04/09/15 05:52*	*04/09/15 08:53*	*1*
Terphenyl-d14 (Surr)	*81*		*31 - 115*	*04/09/15 05:52*	*04/09/15 08:53*	*1*

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

Lab Sample ID: LCS 240-175675/10-A
Matrix: Water
Analysis Batch: 175697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	20.0	15.0		ug/L		75	52 - 120
Phenol	20.0	10.1		ug/L		51	16 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*29 - 110*
2-Fluorophenol (Surr)	*63*		*15 - 110*
2,4,6-Tribromophenol (Surr)	*91*		*21 - 128*
Nitrobenzene-d5 (Surr)	*99*		*31 - 110*
Phenol-d5 (Surr)	*49*		*10 - 110*
Terphenyl-d14 (Surr)	*80*		*31 - 115*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-138236/1-A
Matrix: Water
Analysis Batch: 138323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138236

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.10	U	0.10	0.016	ug/L		04/11/15 14:00	04/13/15 13:57	4

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*62*		*32 - 140*	*04/11/15 14:00*	*04/13/15 13:57*	*4*

Lab Sample ID: LCS 180-138236/2-A
Matrix: Water
Analysis Batch: 138323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	2.50	2.60		ug/L		104	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*32 - 140*

Lab Sample ID: LCSD 180-138236/3-A
Matrix: Water
Analysis Batch: 138323

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138236

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	2.50	2.26		ug/L		90	40 - 140	14	30

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

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

Lab Sample ID: MB 240-175673/2-A
Matrix: Water
Analysis Batch: 175998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 175673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	0.10	U	0.10	0.080	mg/L		04/09/15 05:42	04/10/15 18:25	1

Lab Sample ID: LCS 240-175673/3-A
Matrix: Water
Analysis Batch: 175998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	0.500	0.515		mg/L		103	75 - 115

Lab Sample ID: LCSD 240-175673/4-A
Matrix: Water
Analysis Batch: 175998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 175673

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
WI Diesel Range Organics (C10-C28)	0.500	0.440		mg/L		88	75 - 115	16	20

Method: 8290 - Dioxins/Furans, HRGC/HRMS (8290)

Lab Sample ID: H5D130000018B
Matrix: Water
Analysis Batch: 5103018

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 5103018_P

Analyte	MB Result	MB Qualifier	ML	EDL	TEF	TEQ	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	1.5	1		pg/L		04/13/15 11:00	04/15/15 13:18	1
Total TEQ						0.00					

Internal Standard	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*80*		*40 - 135*	*04/13/15 11:00*	*04/15/15 13:18*	*1*

Lab Sample ID: H5D130000018C
Matrix: Water
Analysis Batch: 5103018

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 5103018_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	202		pg/L		101	77 - 127

Internal Standard	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*83*		*40 - 135*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-175729/1-A
Matrix: Water
Analysis Batch: 176309

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 175729

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.183	J	5.0	0.18	ug/L		04/09/15 09:16	04/13/15 13:16	1
Copper	2.0	U	2.0	0.75	ug/L		04/09/15 09:16	04/13/15 13:16	1
Iron	100	U	100	16	ug/L		04/09/15 09:16	04/13/15 13:16	1
Manganese	5.0	U	5.0	1.1	ug/L		04/09/15 09:16	04/13/15 13:16	1
Zinc	20	U	20	7.3	ug/L		04/09/15 09:16	04/13/15 13:16	1

Lab Sample ID: LCS 240-175729/2-A
Matrix: Water
Analysis Batch: 176309

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 175729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1020		ug/L		102	80 - 120
Copper	1000	1100		ug/L		110	80 - 120
Iron	10000	10500		ug/L		105	80 - 120
Manganese	1000	1040		ug/L		104	80 - 120
Zinc	1000	1120		ug/L		112	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-176255/3
Matrix: Water
Analysis Batch: 176255

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.41	mg/L			04/13/15 17:12	1

Lab Sample ID: LCS 240-176255/4
Matrix: Water
Analysis Batch: 176255

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.0		mg/L		106	90 - 110

Lab Sample ID: 240-49061-1 MS
Matrix: Water
Analysis Batch: 176255

Client Sample ID: W-150406-PS-QE
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	15		50.0	68.7		mg/L		107	80 - 120

Lab Sample ID: 240-49061-1 MSD
Matrix: Water
Analysis Batch: 176255

Client Sample ID: W-150406-PS-QE
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15		50.0	73.0		mg/L		116	80 - 120	6	20

GC/MS VOA

Analysis Batch: 175903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	8260B	
LCS 240-175903/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-175903/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 175675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	3510C	
LCS 240-175675/10-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-175675/9-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 175697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	8270C	175675
LCS 240-175675/10-A	Lab Control Sample	Total/NA	Water	8270C	175675
MB 240-175675/9-A	Method Blank	Total/NA	Water	8270C	175675

GC Semi VOA

Prep Batch: 138236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	8151A	
240-49061-2	W-150406-PS-MI	Total/NA	Water	8151A	
LCS 180-138236/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-138236/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-138236/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 138323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	8151A	138236
LCS 180-138236/2-A	Lab Control Sample	Total/NA	Water	8151A	138236
LCSD 180-138236/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	138236
MB 180-138236/1-A	Method Blank	Total/NA	Water	8151A	138236

Analysis Batch: 138420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-2	W-150406-PS-MI	Total/NA	Water	8151A	138236

Prep Batch: 175673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	3520C	
LCS 240-175673/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-175673/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-175673/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 175998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	WI-DRO	175673
LCS 240-175673/3-A	Lab Control Sample	Total/NA	Water	WI-DRO	175673

GC Semi VOA (Continued)

Analysis Batch: 175998 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 240-175673/4-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	175673
MB 240-175673/2-A	Method Blank	Total/NA	Water	WI-DRO	175673

Specialty Organics

Analysis Batch: 5103018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total	Water	8290	
H5D130000018B	Method Blank	Total	Water	8290	
H5D130000018C	Lab Control Sample	Total	Water	8290	

Prep Batch: 5103018_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total	Water	8290	
H5D130000018B	Method Blank	Total	Water	8290	
H5D130000018C	Lab Control Sample	Total	Water	8290	

Metals

Prep Batch: 175729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total Recoverable	Water	3005A	
LCS 240-175729/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 240-175729/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 176309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total Recoverable	Water	6020	175729
LCS 240-175729/2-A	Lab Control Sample	Total Recoverable	Water	6020	175729
MB 240-175729/1-A	Method Blank	Total Recoverable	Water	6020	175729

General Chemistry

Analysis Batch: 176255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49061-1	W-150406-PS-QE	Total/NA	Water	300.0	
240-49061-1 MS	W-150406-PS-QE	Total/NA	Water	300.0	
240-49061-1 MSD	W-150406-PS-QE	Total/NA	Water	300.0	
LCS 240-176255/4	Lab Control Sample	Total/NA	Water	300.0	
MB 240-176255/3	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

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

TestAmerica Job ID: 240-49061-1

Client Sample ID: W-150406-PS-QE

Lab Sample ID: 240-49061-1

Date Collected: 04/06/15 14:15

Matrix: Water

Date Received: 04/08/15 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	175903	04/10/15 17:00	RJQ	TAL CAN
Total/NA	Prep	3510C			175675	04/09/15 05:52	CSC	TAL CAN
Total/NA	Analysis	8270C		1	175697	04/09/15 15:34	MRU	TAL CAN
Total/NA	Prep	8151A			138236	04/11/15 14:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	138323	04/13/15 14:18	JMO	TAL PIT
Total/NA	Prep	3520C			175673	04/09/15 05:42	CSC	TAL CAN
Total/NA	Analysis	WI-DRO		1	175998	04/10/15 19:19	DEB	TAL CAN
Total	Prep	8290			5103018_P	04/13/15 11:00		TAL KNX
Total	Analysis	8290		1	5103018	04/15/15 23:38	PMP	TAL KNX
Total Recoverable	Prep	3005A			175729	04/09/15 09:16	WAL	TAL CAN
Total Recoverable	Analysis	6020		1	176309	04/13/15 14:23	AS1	TAL CAN
Total/NA	Analysis	300.0		1	176255	04/13/15 21:02	JMB	TAL CAN

Client Sample ID: W-150406-PS-MI

Lab Sample ID: 240-49061-2

Date Collected: 04/06/15 14:30

Matrix: Water

Date Received: 04/08/15 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			138236	04/11/15 14:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4000	138420	04/14/15 11:00	JMO	TAL PIT

Laboratory References:

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

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49061-1

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	08-31-15

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0688	06-17-15
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-16
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-15
Georgia	State Program	4	906	04-13-17
Hawaii	State Program	9	N/A	04-13-16
Kansas	NELAP	7	E-10349	04-30-15
Kentucky (DW)	State Program	4	90101	12-31-15
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-15
Louisiana	NELAP	6	LA110001	12-31-15
Maryland	State Program	3	277	03-31-16
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-15
New Jersey	NELAP	2	TN001	06-30-15
New York	NELAP	2	10781	03-31-16
North Carolina (DW)	State Program	4	21705	07-31-15
North Carolina (WW/SW)	State Program	4	64	12-31-15
Ohio VAP	State Program	5	CL0059	01-16-17
Oklahoma	State Program	6	9415	08-31-15
Pennsylvania	NELAP	3	68-00576	12-31-15
South Carolina	State Program	4	84001	06-30-15
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-TX	08-31-15
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-15
Virginia	NELAP	3	460176	09-14-15
Virginia	State Program	3	165	06-30-15
Washington	State Program	10	C593	01-19-16
West Virginia (DW)	State Program	3	9955C	12-31-15
West Virginia DEP	State Program	3	345	04-30-15
Wisconsin	State Program	5	998044300	08-31-15

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


240-49061 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

2.4 | C29

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112 United States
Phone: (651) 639-0913 Fax: (651) 639-0923

COC NO. SP- 01517
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 086165-01-01	**Laboratory Name:** Test America	**Lab Location:** N. Canton	**SSOW ID:**
Project Name: Penta Wood	**Lab Contact:** Heckler	**Lab Quote No:**	**Cooler No:**
Project Location: Siren, WI			**Carrier:** fed Ex
Chemistry Contact: Grant Anderson			**Airbill No:**
Sampler(s): Peter Storlie			**Date Shipped:** 4-7-15

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Container Quantity & Preservation: Unpreserved	HCl	HNO_3	H_2SO_4	NaOH	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Analysis Requested: PCB-8151	D&O	Metal/Dioxin (23378 TCDD)	Chloride	BTEX	Naphthalene	Metals (Total rec As, Cu, Zn, Fe, Mn)	MS/MSD Request	Comments/ Special Instructions
1	W-150406-PS-QE	4.6.15	1415	W	G	8	4	1						13	X	X	X	X	X	X	X		Effluent
2	W-150406-PS-MI	4.6.15	1430	W	G	2								2	X								Influent (combined)
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

Page 23 of 27

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: Standard

Total Number of Containers: 15
All Samples in Cooler must be on COC

Notes/ Special Requirements:

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.		CRA	4.7.15	1600	1.	TA	4-8-15	920
2.					2.			
3.					3.			

4/21/2015

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 49001
Canton Facility

Client CRA Site Name

Cooler Received on 4.8.15 Opened on 4.8.15

Cooler unpacked by:

FedEx: 1st Grd (Exp) 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 +4.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. 2.4 °C Corrected Cooler Temp. 2.9 °C ☐ See Multiple Cooler Form

~~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

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):

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
W-150406-PS-QE	240-49061-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
W-150406-PS-QE	240-49061-F-1	Amber Glass 1 liter Wide - Hydroch	<2	_____	_____

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-49061-1

Login Number: 49061
List Number: 2
Creator: Kovitch, Christina M

List Source: TestAmerica Pittsburgh
List Creation: 04/09/15 11:22 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-49061-1

Login Number: 49061
List Number: 3
Creator: Kovitch, Christina M

List Source: TestAmerica Pittsburgh
List Creation: 04/09/15 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (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: 240-49237-1
Client Project/Site: 86165-01-01, Penta Wood

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

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
4/21/2015 1:13:11 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

Table of Contents

Qualifiers

GC Semi VOA

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.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
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)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-49237-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 86165-01-01, Penta Wood

Report Number: 240-49237-1

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 04/11/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.1 C.

CHLORINATED HERBICIDES

Sample W-150410-PS-BETWEEN GACS (240-49237-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 04/15/2015 and analyzed on 04/21/2015.

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.

The surrogate for the method blank is suspected as double spiked.

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49237-1

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

TestAmerica Job ID: 240-49237-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-49237-1	W-150410-PS-BETWEEN GACS	Water	04/10/15 10:00	04/11/15 10:00

Detection Summary

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

TestAmerica Job ID: 240-49237-1

Client Sample ID: W-150410-PS-BETWEEN GACS

Lab Sample ID: 240-49237-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.016	J p	0.095	0.015	ug/L	4		8151A	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 240-49237-1

Client Sample ID: W-150410-PS-BETWEEN GACS
Date Collected: 04/10/15 10:00
Date Received: 04/11/15 10:00

Lab Sample ID: 240-49237-1
Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.016	J p	0.095	0.015	ug/L		04/15/15 08:10	04/21/15 08:17	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*60*		*32 - 140*	*04/15/15 08:10*	*04/21/15 08:17*	*4*

Surrogate Summary

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

TestAmerica Job ID: 240-49237-1

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	DCPA1 (32-140)	DCPA2 (32-140)								
240-49237-1	W-150410-PS-BETWEEN GACS	60	52								
LCS 180-138525/2-A	Lab Control Sample	86	88								
MB 180-138525/1-A	Method Blank	131	113								

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-138525/1-A
Matrix: Water
Analysis Batch: 139103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138525

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.10	U	0.10	0.016	ug/L		04/15/15 08:10	04/21/15 07:57	4

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*131*		*32 - 140*	*04/15/15 08:10*	*04/21/15 07:57*	*4*

Lab Sample ID: LCS 180-138525/2-A
Matrix: Water
Analysis Batch: 139022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138525

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	2.50	2.54		ug/L		102	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*88*		*32 - 140*

QC Association Summary

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

TestAmerica Job ID: 240-49237-1

GC Semi VOA

Prep Batch: 138525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49237-1	W-150410-PS-BETWEEN GACS	Total/NA	Water	8151A	
LCS 180-138525/2-A	Lab Control Sample	Total/NA	Water	8151A	
MB 180-138525/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 139022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-138525/2-A	Lab Control Sample	Total/NA	Water	8151A	138525

Analysis Batch: 139103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49237-1	W-150410-PS-BETWEEN GACS	Total/NA	Water	8151A	138525
MB 180-138525/1-A	Method Blank	Total/NA	Water	8151A	138525

Lab Chronicle

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

TestAmerica Job ID: 240-49237-1

Client Sample ID: W-150410-PS-BETWEEN GACS **Lab Sample ID: 240-49237-1**

Date Collected: 04/10/15 10:00 **Matrix: Water**

Date Received: 04/11/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			138525	04/15/15 08:10	JPM	TAL PIT
Total/NA	Analysis	8151A		4	139103	04/21/15 08:17	JMO	TAL PIT

Laboratory References:

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49237-1

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	08-31-15

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

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

CHAIN OF CUSTODY RECORD

1.6/C2-1 COC NO.: SP- 01295

PAGE 1 OF 1

(See Reverse Side for Instructions)

CONESTOGA-ROVERS & ASSOCIATES
1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112 United States
Phone: (651) 639-0913 Fax: (651) 639-0923

Project No/ Phase/Task Code: 086165-01-01	Laboratory Name: Test America	Lab Location: N. Canton	SSOW ID:
Project Name: Penta Wood	Lab Contact: D. Heckler	Lab Quote No:	Cooler No:
Project Location: Siren, WI			Carrier:
Chemistry Contact: G. Anderson (ganderson@craworld.com)			Airbill No:
Sampler(s): P. Storlie			Date Shipped:

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd//yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Container Quantity & Preservation: Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Analysis Requested (See Back of COC for Definitions): X PCP - 8151	MS/MSD Request	Comments/ Special Instructions:
1	W-150410-PS-Between GACs	04/10/15	1000	W	G	2								2	X		
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Page 15 of 17

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: STANDARD

Total Number of Containers: 2

All Samples in Cooler must be on COC

Notes/ Special Requirements:

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	Ted Zo	CRA	4.10.15	1440	1. Jessie Bond	TA Canton	4/11/15	10:00
2.					2.			
3.					3.			

4/21/2015

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 49237
Canton Facility

Client CRA Site Name Penta Wood Cooler unpacked by: Jessie Bonci

Cooler Received on 4/11/15 Opened on 4/11/15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

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

TestAmerica Cooler # NO # 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 +4.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 2.1 °C ☐ See Multiple Cooler Form

~~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

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):

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-49237-1

Login Number: 49237
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 04/14/15 04:21 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (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: 240-49466-1
Client Project/Site: 86165-01-01, Penta Wood

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

Attn: Mr. Grant Anderson

Denise D Heckler

Authorized for release by:
4/21/2015 9:50:27 AM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

Table of Contents

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
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)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-49466-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 86165-01-01, Penta Wood

Report Number: 240-49466-1

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 04/17/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.7 C.

CHLORINATED HERBICIDES

Sample W-150416-PS-WE (240-49466-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 04/18/2015 and analyzed on 04/21/2015.

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.

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49466-1

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

TestAmerica Job ID: 240-49466-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-49466-1	W-150416-PS-WE	Water	04/16/15 09:30	04/17/15 10:00

Detection Summary

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

TestAmerica Job ID: 240-49466-1

Client Sample ID: W-150416-PS-WE

Lab Sample ID: 240-49466-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.12		0.095	0.015	ug/L	4		8151A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-150416-PS-WE
Date Collected: 04/16/15 09:30
Date Received: 04/17/15 10:00

Lab Sample ID: 240-49466-1
Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.12		0.095	0.015	ug/L		04/18/15 10:26	04/21/15 02:05	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*70*		*32 - 140*	*04/18/15 10:26*	*04/21/15 02:05*	*4*

Surrogate Summary

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

TestAmerica Job ID: 240-49466-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPA1 (32-140)	DCPA2 (32-140)
240-49466-1	W-150416-PS-WE	70	59
LCS 180-138930/2-A	Lab Control Sample	84	77
MB 180-138930/1-A	Method Blank	55	46

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-138930/1-A
Matrix: Water
Analysis Batch: 139022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.10	U	0.10	0.016	ug/L		04/18/15 09:15	04/21/15 01:44	4

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*55*		*32 - 140*	*04/18/15 09:15*	*04/21/15 01:44*	*4*

Lab Sample ID: LCS 180-138930/2-A
Matrix: Water
Analysis Batch: 139022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	2.50	2.90		ug/L		116	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*84*		*32 - 140*

GC Semi VOA

Prep Batch: 138930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49466-1	W-150416-PS-WE	Total/NA	Water	8151A	
LCS 180-138930/2-A	Lab Control Sample	Total/NA	Water	8151A	
MB 180-138930/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 139022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-49466-1	W-150416-PS-WE	Total/NA	Water	8151A	138930
LCS 180-138930/2-A	Lab Control Sample	Total/NA	Water	8151A	138930
MB 180-138930/1-A	Method Blank	Total/NA	Water	8151A	138930

Lab Chronicle

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

TestAmerica Job ID: 240-49466-1

Client Sample ID: W-150416-PS-WE
Date Collected: 04/16/15 09:30
Date Received: 04/17/15 10:00

Lab Sample ID: 240-49466-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			138930	04/18/15 10:26	CBY	TAL PIT
Total/NA	Analysis	8151A		4	139022	04/21/15 02:05	JMO	TAL PIT

Laboratory References:

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: 86165-01-01, Penta Wood

TestAmerica Job ID: 240-49466-1

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	08-31-15

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

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

4.2/C4.7

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112 United States
Phone: (651) 639-0913 Fax: (651) 639-0923

COC NO.: SP-01436
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 086165-01-01	Laboratory Name: Test America	Lab Location: N. Canton	SSOW ID:
Project Name: Penta Wood	Lab Contact: D. Heckla	Lab Quote No:	Cooler No:
Project Location: Siren, WI			Carrier: Fed Ex
Chemistry Contact: ganderson@craworld.com			Airbill No: 854107013889
Sampler(s): P. Storlie			Date Shipped: 4-16-15

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	PCP-8151	MS/MSD Request	Comments/ Special Instructions:
1	W-150416-PS-WE	4-16-15	0930	W	G	X								2	X		Weekly Effluent
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Page 15 of 17

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: Standard

Total Number of Containers: 2

All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	CRA	4-16-15	1400	1.	TA	4-17-15	1000
2.				2.			
3.				3.			

4/21/2015

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 49448
Canton Facility

Client CRA Site Name _____ Cooler unpacked by:

Cooler Received on 4-17-15 Opened on 4-17-15

FedEx: 1st Grd Exp 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 +4.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. 4.2 °C Corrected Cooler Temp. 4.7 °C ☐ See Multiple Cooler Form

~~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

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 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): _____

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-49466-1

Login Number: 49466
List Number: 2
Creator: Lonzo, Michael A

List Source: TestAmerica Pittsburgh
List Creation: 04/18/15 10:21 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	