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www.CRAworld.com

July 17, 2013 Reference No. 017303

Mr. Luther Blackburn YCUA Industrial Pretreatment Program Supervisor Ypsilanti Community Utilities Authority 2777 State Road Ypsilanti, MI 48198-9112

Dear Mr. Blackburn:

Re: Quarterly/Semi-Annual Self-Monitoring Report

Industrial User Permit #RA 12-15

**RACER Trust** 

Company Vehicle Operations Area (CVO)

2901 Tyler Road

Ypsilanti, Michigan

Pursuant to requirements of Industrial User Permit # RA 12-15 (Permit) Part 3 A, the permitee is required to submit self-monitoring reports by the 20<sup>th</sup> of every month following the reporting period specified in Appendix A of the Permit. Conestoga-Rovers & Associates (CRA) has prepared this self-monitoring report on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust.

This self-monitoring report summarizes the discharge information for the 2013 second quarter (April through June) and first semi-annual (January through June) periods.

During the April through June period, water was discharged on April 25, May 16, and June 20. The water was treated with sodium permanganate prior to each discharge event during this quarter. The semi-annual sampling event (additional sampling parameters) was conducted on May 16th. Attachment A presents a summary of the analytical and flow data for samples collected on all three discharge dates. The laboratory reports, including chains of custody are provided in Attachment B.

CRA will continue to add the sodium permanganate to the equalization tank to reduce the volatile organic compound concentrations. Due to the addition of sodium permanganate, purple colored water may be discharged to the YCUA sewer.

Equal Employment Opportunity Employer





July 17, 2013

-2-

Reference No. 017303

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

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

th Landalo

Beth Landale, PE Project Manager

DB/sp/36/Det. Encl.

cc:

Grant Trigger. RACER Dave Favero, RACER

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

**Grant Trigger** 

Michigan Cleanup Manager

Jena R Try

Revitalizing Auto Communities Environmental Response Trust

# YPSILANTI COMMUNITY UTILITIES AUTHORITY INDUSTRIAL USER PERMIT SELF MONITORING REPORT REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST

Facility: Company Vehicle Operations Area

Permit No.: RA 12-15

Sample Point: Post Treatment and Prior to discharge into MH6

Reporting Period

Year 2013 Quarter II

Sample Date					4/25/2013	5/16/2013	6/20/2013
Sample Location					Point of Discharge	Point of Discharge	Point of Discharge
Sample ID					WW-17303-042513-	WW-17303-051613-CT-	WW-17303-062013-SK-
					NL-001	001 and W-17303- 051613-CT-002	001
Parameter	Upper Limit (mg/l)	Monitoring Frequency	Reporting Frequency	Sample Type			
Flow (GAL)	Report	Once/Discharge	Monthly/Quarterly	Metered	14,212	16,531	14,960
1,2-Dichloroethane	0.50	Monthly	Quarterly	Grab	0.0049	0.012/ 0.012	0.0072
Trichloroethene	0.50	Monthly	Quarterly	Grab	0.002 U	0.001 U/ 0.001 U	0.002 U
Vinyl Chloride	0.20	Monthly	Quarterly	Grab	0.002 U	0.001 U/ 0.001 U	0.002 U
Polychlorinated Biphenyls	<0.0002**	Monthly	Quarterly	24-Hour Time proportionated Composite***	0.000099 U	0.000095 U/ 0.000095 U	0.000095 U
рН	$\geq$ 5.0 and $\leq$ 11.0 S.U	Semi-Annual	Semi-Annual	Grab		6.90/ 6.93	
Benzene	0.50	Semi-Annual	Semi-Annual	Grab		0.044 E/ 0.046 E	
Carbon Tetrachloride	0.50	Semi-Annual	Semi-Annual	Grab		0.001 U/ 0.001 U	
Chlorobenzene	100.00	Semi-Annual	Semi-Annual	Grab		0.00064 J/ 0.00063 J	
Chloroform	6.00	Semi-Annual	Semi-Annual	Grab		0.0011/ 0.0011	
1,4-Dichlorobenzene	7.50	Semi-Annual	Semi-Annual	Grab		0.0040/ 0.0041	
1,1-Dichloroethene	0.70	Semi-Annual	Semi-Annual	Grab		0.001 U/ 0.001 U	
Methyl Ethyl Ketone	200.00	Semi-Annual	Semi-Annual	Grab		0.015/ 0.015	
Tetrachloroethene	0.70	Semi-Annual	Semi-Annual	Grab		0.001 U/ 0.001 U	
Total Phenolics	1.00	Semi-Annual	Semi-Annual	Grab		0.04 U/ 0.04 U	

#### Notes

<sup>\*</sup> As established in Part 4, Section B - Special Conditions: The permitee is required to report the total volume of process discharges to Outfall 001 by the 5th of every month for the previous calendar month. The permitee shall additionally report a summary of individual discharges during the reporting quarter. The quarterly summary shall accompany the permitee's monitoring report submittal.

<sup>\*\*</sup> Any discharge at or above the level of detection shall be a specific violation of the Permit. For PCB analysis, the sampling and analytical protocol for compliance shall be in accordance with EPA Method 608 employing a detection level of 0.0002 mg/L unless a higher detection limit is appropriate due to sample matrix interference.

 $<sup>{}^{***}</sup>PCBs \ are \ not \ 24 \ hour \ composites \ but \ time \ proportion ated \ composites \ while \ the \ system \ is \ treating \ and \ discharging.$ 

U: Analyte was analyzed for but not detected

E: Result exceeded calibration range

J: Concentration is an approximate value



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: 240-23759-1

Client Project/Site: 17303-T02-018, RACER CVO

#### For:

Conestoga-Rovers & Associates, Inc. 14496 Sheldon Road, Suite 200 Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

ense DHeckler

Authorized for release by: 5/13/2013 10:30:01 AM

Denise Heckler, Project Manager II denise.heckler@testamericainc.com

·····LINKS ·······

**Review your project** results through Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Job ID: 240-23759-1

**Laboratory: TestAmerica Canton** 

Narrative

#### **CASE NARRATIVE**

Client: Conestoga-Rovers & Associates, Inc.

**Project: 17303-T02-018, RACER CVO** 

Report Number: 240-23759-1

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 04/29/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.2 C.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS)**

Samples WW-17303-042513-NL-001 (240-23759-1) and TB-17303-042513-NL-002 (240-23759-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/08/2013.

Sample WW-17303-042513-NL-001 (240-23759-1)[2X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the VOCs analyses.

All quality control parameters were within the acceptance limits.

#### **POLYCHLORINATED BIPHENYLS (PCBS)**

Sample WW-17303-042513-NL-001 (240-23759-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082. The samples were prepared on 05/01/2013 and analyzed on 05/03/2013.

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#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Job ID: 240-23759-1 (Continued)

**Laboratory: TestAmerica Canton (Continued)** 

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

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## **Definitions/Glossary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected. Ū

#### **GC Semi VOA**

Qualifier **Qualifier Description** 

U Indicates the analyte was analyzed for but not detected.

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

**Quality Control** 

Relative error ratio

#### **Glossary**

QC

RER

RPD

TEF

TEQ

RL

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit

## **Sample Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-23759-1	WW-17303-042513-NL-001	Water	04/25/13 11:00	04/29/13 09:30
240-23759-2	TB-17303-042513-NL-002	Water	04/25/13 00:00	04/29/13 09:30

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## **Detection Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Client Sample ID: WW-17303-042513-NL-001

Lab Sample ID: 240-23759-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Metho	
1,2-Dichloroethane	4.9	2.0	0.44 ug/L	2 8260B	Total/NA

Client Sample ID: TB-17303-042513-NL-002 Lab Sample ID: 240-23759-2

No Detections.

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## **Method Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN

#### Protocol References:

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

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Dibromofluoromethane (Surr)

TestAmerica Job ID: 240-23759-1

05/08/13 19:53

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

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Client Sample ID: WW-17303-042513-NL-001	Lab Sample ID: 240-23759-1
Date Collected: 04/25/13 11:00	Matrix: Water

Date Collected: 04/25/13 11:00								Matrix	c: Water
Date Received: 04/29/13 09:30									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	4.9		2.0	0.44	ug/L			05/08/13 19:53	2
Trichloroethene	2.0	U	2.0	0.34	ug/L			05/08/13 19:53	2
Vinyl chloride	2.0	U	2.0	0.44	ug/L			05/08/13 19:53	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 129			_		05/08/13 19:53	2
4-Bromofluorobenzene (Surr)	94		66 - 117					05/08/13 19:53	2
Toluene-d8 (Surr)	95		74 - 115					05/08/13 19:53	2

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Lab Sample ID: 240-23759-2

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

Date Collected: 04/25/13 00:00								Matrix	x: Water
Date Received: 04/29/13 09:30 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			05/08/13 19:08	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/08/13 19:08	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/08/13 19:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 129			-		05/08/13 19:08	1
4-Bromofluorobenzene (Surr)	96		66 - 117					05/08/13 19:08	1
Toluene-d8 (Surr)	97		74 - 115					05/08/13 19:08	1
Dibromofluoromethane (Surr)	96		75 - 121					05/08/13 19:08	1

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: WW-17303-042513-NL-001 Lab Sample ID: 240-23759-1
Date Collected: 04/25/13 11:00 Matrix: Water

Date Received: 04/29/13 09:30

Date Received: 04/29/13 09:30									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.099	U	0.099	0.044	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1221	0.099	U	0.099	0.045	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1232	0.099	U	0.099	0.072	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1242	0.099	U	0.099	0.059	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1248	0.099	U	0.099	0.060	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1254	0.099	U	0.099	0.032	ug/L		05/01/13 14:07	05/03/13 19:30	1
Aroclor-1260	0.099	U	0.099	0.038	ug/L		05/01/13 14:07	05/03/13 19:30	1
Surrogate	%Recovery	Qualifier	l imite				Propared	Analyzod	Dil Fac

Surrogate	%Recovery G	Qualifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67	35 - 137	05/01/13 14:07	05/03/13 19:30	1
DCB Decachlorobiphenyl	14	10 - 140	05/01/13 14:07	05/03/13 19:30	1

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## **QC Association Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

#### **GC/MS VOA**

#### Analysis Batch: 85102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-23759-1	WW-17303-042513-NL-001	Total/NA	Water	8260B	
240-23759-2	TB-17303-042513-NL-002	Total/NA	Water	8260B	
LCS 240-85102/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-85102/6	Method Blank	Total/NA	Water	8260B	

#### GC Semi VOA

#### Prep Batch: 84345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-23759-1	WW-17303-042513-NL-001	Total/NA	Water	3510C	<u> </u>
LCS 240-84345/9-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-84345/8-A	Method Blank	Total/NA	Water	3510C	

#### Analysis Batch: 84682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-23759-1	WW-17303-042513-NL-001	Total/NA	Water	8082	84345
LCS 240-84345/9-A	Lab Control Sample	Total/NA	Water	8082	84345
MB 240-84345/8-A	Method Blank	Total/NA	Water	8082	84345

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TestAmerica Job ID: 240-23759-1

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

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

Lab Sample ID: MB 240-85102/6

**Matrix: Water** 

**Analysis Batch: 85102** 

Client Sample ID: Method Blank

Prep Type: Total/NA

-	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			05/08/13 11:09	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/08/13 11:09	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/08/13 11:09	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		63 - 129		05/08/13 11:09	1
4-Bromofluorobenzene (Surr)	97		66 - 117		05/08/13 11:09	1
Toluene-d8 (Surr)	98		74 - 115		05/08/13 11:09	1
Dibromofluoromethane (Surr)	96		75 - 121		05/08/13 11:09	1

Lab Sample ID: LCS 240-85102/4

**Matrix: Water** 

Analysis Batch: 85102

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

Spike LCS LCS %Rec. Analyte Added Result Qualifier %Rec Limits Unit 10.0 1,2-Dichloroethane 9.85 ug/L 98 71 - 127 Trichloroethene 10.0 10.0 100 76 - 117 ug/L Vinyl chloride 10.0 9.73 ug/L 97 53 - 127

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 129
4-Bromofluorobenzene (Surr)	98		66 - 117
Toluene-d8 (Surr)	97		74 - 115
Dibromofluoromethane (Surr)	98		75 - 121

### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-84345/8-A

**Matrix: Water** 

Analysis Batch: 84682

Prep Type: Total/NA

Prep Batch: 84345

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.044	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1221	0.10	U	0.10	0.045	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1232	0.10	U	0.10	0.073	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1242	0.10	U	0.10	0.060	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1248	0.10	U	0.10	0.061	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1254	0.10	U	0.10	0.032	ug/L		05/01/13 14:07	05/03/13 20:28	1
Aroclor-1260	0.10	U	0.10	0.038	ug/L		05/01/13 14:07	05/03/13 20:28	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		35 _ 137	05/01/13 14	05/03/13 20:28	1
DCB Decachlorobinhenyl	24		10 140	05/01/13 14	07 05/03/13 20:28	1

TestAmerica Canton

## **QC Sample Results**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

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Lab Sample	ID: LCS 240-84345/9-A

**Matrix: Water** 

Tetrachloro-m-xylene

DCB Decachlorobiphenyl

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84345

Analysis Batch: 84682									Prep Ba	tcn: 84345
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aroclor-1016			2.50	2.09		ug/L		84	56 - 130	
Aroclor-1260			2.50	2.10		ug/L		84	43 - 126	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							

35 - 137

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

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

Matrix: Water Prep Type: Total/NA

Lab Sample ID         Client Sample ID         (63-129)         (66-117)         (74-115)         (75-121)           240-23759-1         WW-17303-042513-NL-001         95         94         95         97           240-23759-2         TB-17303-042513-NL-002         95         96         97         96           LCS 240-85102/4         Lab Control Sample         93         98         97         98
240-23759-1 WW-17303-042513-NL-001 95 94 95 97 240-23759-2 TB-17303-042513-NL-002 95 96 97 96
240-23759-2 TB-17303-042513-NL-002 95 96 97 96
LCS 240 95102/4 Lab Control Sample 03 09 07 09
100 240-03 102/4 Lab Control Sample 93 96 97 96
MB 240-85102/6 Method Blank 97 97 98 96

#### **Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

#### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		TCX2	DCB2	
Lab Sample ID	Client Sample ID	(35-137)	(10-140)	
240-23759-1	WW-17303-042513-NL-001	67	14	
LCS 240-84345/9-A	Lab Control Sample	75	50	
MB 240-84345/8-A	Method Blank	57	24	

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

TestAmerica Canton

#### **Lab Chronicle**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

Lab Sample ID: 240-23759-1

Motrix: Woter

Matrix: Water

Client Sample ID: WW-17303-042513-NL-001 Date Collected: 04/25/13 11:00

Date Received: 04/29/13 09:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			85102	05/08/13 19:53	LW	TAL CAN
Total/NA	Prep	3510C			84345	05/01/13 14:07	BM	TAL CAN
Total/NA	Analysis	8082		1	84682	05/03/13 19:30	LH	TAL CAN

Client Sample ID: TB-17303-042513-NL-002 Lab Sample ID: 240-23759-2

Date Collected: 04/25/13 00:00 Matrix: Water

Date Received: 04/29/13 09:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	85102	05/08/13 19:08	LW	TAL CAN

**Laboratory References:** 

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

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## **Certification Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-23759-1

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#### **Laboratory: TestAmerica Canton**

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

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
West Virginia DEP	State Program	3	210	12-31-13
Wisconsin	State Program	5	999518190	08-31-13

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CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

Fax: (734) 453-5201 Phone: (734) 453-5123

(See Reverse Side for Instructions)

COCNO.**PL-** 11156

SPECIAL INSTRUCTIONS: 130 SOW ID: 30640-T03-018 3627 TIME S 4-26-2013 COMMENTS/ 8064 4603 Date Shipped: DATE Cooler No: carrier: F€⊳€× Airbill No: MS/MSD Rednest ANALYSIS REQUESTED
(See Back of COC for Definitions) COMPANY C Notes/ Special Requirements: NORTH CANTON, Lab Quote No: 240-23759 Chain of Custody Lab Location: VOC LIST 1 SCB 2 RECEIVED BY Total Number of Containers: | Total Containers/Sample 5 All Samples in Cooler must be on COC Other: CONTAINER QUANTITY & EnCores 3x5-g, 1x25-g PRESERVATION Methanol/Water (Soil Sodium Hydroxide (NaOH) DENISE HECKLER (pOSsH) bioA ciruflu8 7 က် Laboratory Name: TEST AIMERICA (¿ONH) bioA siniiN હુ M Hydrochloric Acid (HCI) Lab Contact: 3 SAMPLE. TYPE C Grab (G) or Comp (C) NA VA NN (see pack of COC) 4/25/13 11:00 TIME (bhr.mm) TAT Required in business days (use separate COCs for different TATs) □1 Day □2 Days □3 Days □1 Week ▼2 Week □ Offher: TB-17303-042513-NL-002/4/25/13 DATE WW - 17303-042513-NL-001 7 Project No/ Phase/Task Code: 17303 - T02-01712 Project Location: YPSILANTI, PAUL WISEMAN Sampler(s): DAVID RIVERS CVO - RACER SAMPLE IDENTIFICATION RELINGUISHED BY あるまたり Chemistry Contact: Project Name: <sub>4</sub> age ی ا <del>18 of</del> uea N e P 9 თ ۰ 0 - 4 — ო

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

YELLOW — Receiving Laboratory Copy

14 NK-Shipper

CRA Form: COC-10A (20110804)

GOLDENROD -Sampling Crew

WHITE - Fully Executed Copy (CRA)

Distribution:

14. CHAIN OF CUSTODY	& SAMPLE DISCREPANCIES	Samples processed by:
15. SAMPLE CONDITION		
Sample(s)	were received after the recommende	d holding time had expired.
Sample(s)	were re	eceived in a broken container.
Sample(s)	were received with bubble >6	6 mm in diameter. (Notify PM)
16. SAMPLE PRESERVAT	TION	
Sample(s) Time preserved:	w Preservative(s) added/Lot number(s):w	vere further preserved in the laboratory.



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: 240-24550-1

Client Project/Site: 17303-T02-018, RACER CVO

#### For:

Conestoga-Rovers & Associates, Inc. 14496 Sheldon Road, Suite 200 Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Denise DHeckler

Authorized for release by: 6/4/2013 3:14:36 PM

Denise Heckler, Project Manager II denise.heckler@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

Job ID: 240-24550-1

**Laboratory: TestAmerica Canton** 

Narrative

#### **CASE NARRATIVE**

Client: Conestoga-Rovers & Associates, Inc.

**Project: 17303-T02-018, RACER CVO** 

Report Number: 240-24550-1

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 05/17/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.1 C.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS)**

Samples WW-17303-051613-CT-001 (240-24550-1), W-17303-051613-CT-002 (240-24550-2) and TB-17303-051613 (240-24550-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/30/2013 and 05/31/2013.

The following samples required a dilution which was performed outside of the analytical holding time: W-17303-051613-CT-002 (240-24550-2), WW-17303-051613-CT-001 (240-24550-1).

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

#### **POLYCHLORINATED BIPHENYLS (PCBS)**

Samples WW-17303-051613-CT-001 (240-24550-1) and W-17303-051613-CT-002 (240-24550-2) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082. The samples were prepared on 05/23/2013 and analyzed on 05/24/2013.

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#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

#### Job ID: 240-24550-1 (Continued)

#### Laboratory: TestAmerica Canton (Continued)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 87046.

No difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

Samples WW-17303-051613-CT-001 (240-24550-1) and W-17303-051613-CT-002 (240-24550-2) were analyzed for pH in accordance with EPA Method 150.1. The samples were analyzed past the method recommended 15 minute holding time on 05/17/2013.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

#### **PHENOLS**

Samples WW-17303-051613-CT-001 (240-24550-1) and W-17303-051613-CT-002 (240-24550-2) were analyzed for phenols in accordance with EPA Method 420.1. The samples were prepared and analyzed on 05/29/2013.

No difficulties were encountered during the phenol analyses.

All quality control parameters were within the acceptance limits.

## **Definitions/Glossary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Н	Sample was prepped or analyzed beyond the specified holding time
CC Comi V	04

#### GC Semi VOA

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

#### **General Chemistry**

Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes	
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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)
ND	Not detected at the reporting limit (or MDL or EDL if shown)

ND	Not detected at the reporting limit (or MDL or EDL if shown)
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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
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TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Canton

Page 5 of 29

6/4/2013

## **Sample Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-24550-1	WW-17303-051613-CT-001	Water	05/16/13 13:35	05/17/13 09:20
240-24550-2	W-17303-051613-CT-002	Water	05/16/13 13:45	05/17/13 09:20
240-24550-3	TB-17303-051613	Water	05/16/13 00:00	05/17/13 09:20

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

Lab Sample ID: 240-24550-1

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#### Client Sample ID: WW-17303-051613-CT-001

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	41	Н	1.7	0.22	ug/L	1.67	_	8260B	Total/NA
1,2-Dichloroethane - RA	12		1.0	0.22	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene - RA	4.0		1.0	0.13	ug/L	1		8260B	Total/NA
Benzene - RA	44	E	1.0	0.13	ug/L	1		8260B	Total/NA
Chlorobenzene - RA	0.64	J	1.0	0.15	ug/L	1		8260B	Total/NA
Chloroform - RA	1.1		1.0	0.16	ug/L	1		8260B	Total/NA
2-Butanone (MEK) - RA	15		10	0.57	ug/L	1		8260B	Total/NA
рН	6.90	HF	0.100	0.100	SU	1		150.1	Total/NA

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Client Sample ID: W-17303-051613-CT-002

Lab S	Sample	ID·	240-24550-2
Lab C	Julipic	1D.	_ <del></del>

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	42	H	1.7	0.22	ug/L	1.67	_	8260B	Total/NA
1,2-Dichloroethane - RA	12		1.0	0.22	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene - RA	4.1		1.0	0.13	ug/L	1		8260B	Total/NA
Benzene - RA	46	E	1.0	0.13	ug/L	1		8260B	Total/NA
Chlorobenzene - RA	0.63	J	1.0	0.15	ug/L	1		8260B	Total/NA
Chloroform - RA	1.1		1.0	0.16	ug/L	1		8260B	Total/NA
2-Butanone (MEK) - RA	15		10	0.57	ug/L	1		8260B	Total/NA
pH	6.93	HF	0.100	0.100	SU	1		150.1	Total/NA

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Client Sample ID: TB-17303-051613

#### Lab Sample ID: 240-24550-3

Analyte		Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
2-Butanone (MEK)	0.62	J	10	0.57	ug/L	1	_	8260B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

## **Method Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
150.1	pH (Electrometric)	MCAWW	TAL CAN
420.1	Phenolics, Total Recoverable	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.

#### Laboratory References:

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

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

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

 Client Sample ID: WW-17303-051613-CT-001
 Lab Sample ID: 240-24550-1

 Date Collected: 05/16/13 13:35
 Matrix: Water

Date Collected: 05/16/13 13:35								Matrix	c: water
Date Received: 05/17/13 09:20 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	41	Н	1.7	0.22	ug/L			05/31/13 11:46	1.67
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		63 - 129			-		05/31/13 11:46	1.67
4-Bromofluorobenzene (Surr)	82		66 - 117					05/31/13 11:46	1.67
Toluene-d8 (Surr)	90		74 - 115					05/31/13 11:46	1.67
Dibromofluoromethane (Surr)	79		75 - 121					05/31/13 11:46	1.67

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Dibromofluoromethane (Surr)

TestAmerica Job ID: 240-24550-1

05/31/13 12:08

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

Client Sample ID: W-17303-051613 Date Collected: 05/16/13 13:45 Date Received: 05/17/13 09:20	-CT-002						Lab	Sample ID: 240- Matrix	24550-2 x: Water
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	42	Н	1.7	0.22	ug/L			05/31/13 12:08	1.67
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		63 - 129			_		05/31/13 12:08	1.67
4-Bromofluorobenzene (Surr)	82		66 - 117					05/31/13 12:08	1.67
Toluene-d8 (Surr)	91		74 - 115					05/31/13 12:08	1.67

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Toluene-d8 (Surr)

Dibromofluoromethane (Surr)

Dibromofluoromethane (Surr)

TestAmerica Job ID: 240-24550-1

Lab Sample ID: 240-24550-3

05/30/13 14:34

05/30/13 14:34

05/30/13 14:34

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Client Sample ID: TB-17303-051613	

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

onone oumpions. 15 17 000 00	1010						Lub	Campio ID. 240	
Date Collected: 05/16/13 00:00								Matrix	c: Water
Date Received: 05/17/13 09:20									
Analyte	Result Qu	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0 U		1.0	0.19	ug/L			05/30/13 14:34	1
cis-1,2-Dichloroethene	1.0 U		1.0	0.17	ug/L			05/30/13 14:34	1
1,2-Dichloroethane	1.0 U		1.0	0.22	ug/L			05/30/13 14:34	1
Trichloroethene	1.0 U		1.0	0.17	ug/L			05/30/13 14:34	1
1,4-Dichlorobenzene	1.0 U		1.0	0.13	ug/L			05/30/13 14:34	1
Vinyl chloride	1.0 U		1.0	0.22	ug/L			05/30/13 14:34	1
Benzene	1.0 U		1.0	0.13	ug/L			05/30/13 14:34	1
Carbon tetrachloride	1.0 U		1.0	0.13	ug/L			05/30/13 14:34	1
Chlorobenzene	1.0 U		1.0	0.15	ug/L			05/30/13 14:34	1
Chloroform	1.0 U		1.0	0.16	ug/L			05/30/13 14:34	1
2-Butanone (MEK)	0.62 J		10	0.57	ug/L			05/30/13 14:34	1
Tetrachloroethene	1.0 U		1.0	0.29	ug/L			05/30/13 14:34	1
Trichloroethene	1.0 U		1.0	0.17	ug/L			05/30/13 14:34	1
Vinyl chloride	1.0 U		1.0	0.22	ug/L			05/30/13 14:34	1
Surrogate	%Recovery Qu	ualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		63 - 129			-		05/30/13 14:34	1
1,2-Dichloroethane-d4 (Surr)	90		63 - 129					05/30/13 14:34	1
4-Bromofluorobenzene (Surr)	79		66 - 117					05/30/13 14:34	1
4-Bromofluorobenzene (Surr)	79		66 - 117					05/30/13 14:34	1
Toluene-d8 (Surr)	91		74 - 115					05/30/13 14:34	1

74 - 115

75 - 121

75 - 121

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

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

Client Sample ID: WW-17303-051613-CT-001 Lab Sample ID: 240-24550-1 Date Collected: 05/16/13 13:35 Matrix: Water

Date Collected: 05/16/13 13:35

Date Received: 05/17/13 09:20

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/30/13 13:49	1
1,2-Dichloroethane	12		1.0	0.22	ug/L			05/30/13 13:49	1
1,4-Dichlorobenzene	4.0		1.0	0.13	ug/L			05/30/13 13:49	1
Benzene	44	E	1.0	0.13	ug/L			05/30/13 13:49	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			05/30/13 13:49	1
Chlorobenzene	0.64	J	1.0	0.15	ug/L			05/30/13 13:49	1
Chloroform	1.1		1.0	0.16	ug/L			05/30/13 13:49	1
2-Butanone (MEK)	15		10	0.57	ug/L			05/30/13 13:49	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			05/30/13 13:49	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/30/13 13:49	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/30/13 13:49	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90	63 - 129		05/30/13 13:49	1
4-Bromofluorobenzene (Surr)	81	66 - 117		05/30/13 13:49	1
Toluene-d8 (Surr)	89	74 - 115		05/30/13 13:49	1
Dibromofluoromethane (Surr)	78	75 - 121		05/30/13 13:49	1

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

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

Client Sample ID: W-17303-051613-CT-002 Date Collected: 05/16/13 13:45						Lab Sample ID: 240-24550-2 Matrix: Water			
Date Received: 05/17/13 09:20 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/30/13 14:11	1
1,2-Dichloroethane	12		1.0	0.22	ug/L			05/30/13 14:11	1
1,4-Dichlorobenzene	4.1		1.0	0.13	ug/L			05/30/13 14:11	1
Benzene	46	E	1.0	0.13	ug/L			05/30/13 14:11	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			05/30/13 14:11	1
Chlorobenzene	0.63	J	1.0	0.15	ug/L			05/30/13 14:11	1
Chloroform	1.1		1.0	0.16	ug/L			05/30/13 14:11	1
2-Butanone (MEK)	15		10	0.57	ug/L			05/30/13 14:11	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			05/30/13 14:11	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/30/13 14:11	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/30/13 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		63 - 129			_		05/30/13 14:11	1
4-Bromofluorobenzene (Surr)	83		66 - 117					05/30/13 14:11	1
Toluene-d8 (Surr)	91		74 - 115					05/30/13 14:11	1
Dibromofluoromethane (Surr)	80		75 - 121					05/30/13 14:11	1

TestAmerica Canton

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

67

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Client Sample ID: WW-17303-051613-CT-001 Lab Sample ID: 240-24550-1 Date Collected: 05/16/13 13:35 **Matrix: Water** 

Tetrachloro-m-xylene

DCB Decachlorobiphenyl

Date Received: 05/17/13	09:20								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.042	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1221	0.095	U	0.095	0.043	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1242	0.095	U	0.095	0.057	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1248	0.095	U	0.095	0.058	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1254	0.095	U	0.095	0.030	ug/L		05/23/13 08:33	05/24/13 06:20	1
Aroclor-1260	0.095	U	0.095	0.036	ug/L		05/23/13 08:33	05/24/13 06:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

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10 - 140

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: W-17303-051613-CT-002
Date Collected: 05/16/13 13:45

Lab Sample ID: 240-24550-2

Matrix: Water

•							Matrix	c: water
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.095	U	0.095	0.042	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.043	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.070	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.057	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.058	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.030	ug/L		05/23/13 08:33	05/24/13 06:36	1
0.095	U	0.095	0.036	ug/L		05/23/13 08:33	05/24/13 06:36	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
73		35 _ 137				05/23/13 08:33	05/24/13 06:36	1
24		10 - 140				05/23/13 08:33	05/24/13 06:36	1
	Result 0.095 0.095 0.095 0.095 0.095 0.095 0.095 %Recovery 73	Result   Qualifier	Result         Qualifier         RL           0.095         U         0.095           %Recovery         Qualifier         Limits           73         35 - 137	Result         Qualifier         RL         MDL           0.095         U         0.095         0.042           0.095         U         0.095         0.043           0.095         U         0.095         0.070           0.095         U         0.095         0.057           0.095         U         0.095         0.058           0.095         U         0.095         0.030           0.095         U         0.095         0.036           %Recovery         Qualifier         Limits           73         35 ـ 137	Result         Qualifier         RL         MDL         Unit           0.095         U         0.095         0.042         ug/L           0.095         U         0.095         0.043         ug/L           0.095         U         0.095         0.070         ug/L           0.095         U         0.095         0.057         ug/L           0.095         U         0.095         0.058         ug/L           0.095         U         0.095         0.030         ug/L           0.095         U         0.095         0.036         ug/L           %Recovery         Qualifier         Limits           73         35 - 137	Result         Qualifier         RL         MDL         Unit         D           0.095         U         0.095         0.042         ug/L           0.095         U         0.095         0.043         ug/L           0.095         U         0.095         0.070         ug/L           0.095         U         0.095         0.057         ug/L           0.095         U         0.095         0.058         ug/L           0.095         U         0.095         0.030         ug/L           0.095         U         0.095         0.036         ug/L           %Recovery         Qualifier         Limits           73         35 - 137	Result Qualifier         RL 0.095         MDL Unit Unit Unit Unit Unit Unit Unit Unit	Result Qualifier         RL         MDL Unit         D         Prepared         Analyzed           0.095 U         0.095 U         0.042 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.043 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.070 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.057 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.058 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.030 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.030 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.030 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.036 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 U         0.095 0.036 ug/L         05/23/13 08:33 05/24/13 06:36           0.095 V         0.095 0.036 ug/L         05/23/13 08:33 05/24/13 06:36

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

#### **General Chemistry**

Client Sample ID: WW-17303-051613-CT-001

Date Collected: 05/16/13 13:35

Date Received: 05/17/13 09:20

Date Received. 03/11/13 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.90	HF	0.100	0.100	SU			05/17/13 15:45	1
Phenols, Total	0.040	U	0.040	0.0073	mg/L		05/29/13 08:00	05/29/13 15:46	1

Lab Sample ID: 240-24550-1

**Matrix: Water** 

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

Lab Sample ID: 240-24550-2

#### **General Chemistry**

Client Sample ID: W-17303-051613-CT-002

Date Collected: 05/16/13 13:45

Date Received: 05/17/13 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.93	HF	0.100	0.100	SU			05/17/13 15:55	1
Phenols, Total	0.040	U	0.040	0.0073	mg/L		05/29/13 08:00	05/29/13 15:48	1

**Matrix: Water** 

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

**GC/MS VOA** 

**Analysis Batch: 87797** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1 - RA	WW-17303-051613-CT-001	Total/NA	Water	8260B	
240-24550-2 - RA	W-17303-051613-CT-002	Total/NA	Water	8260B	
240-24550-3	TB-17303-051613	Total/NA	Water	8260B	
LCS 240-87797/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-87797/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 87987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	8260B	
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	8260B	
LCS 240-87987/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-87987/5	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 87046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	3510C	
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	3510C	
LCS 240-87046/14-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-87046/13-A	Method Blank	Total/NA	Water	3510C	

**Analysis Batch: 87211** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	8082	87046
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	8082	87046
LCS 240-87046/14-A	Lab Control Sample	Total/NA	Water	8082	87046
MB 240-87046/13-A	Method Blank	Total/NA	Water	8082	87046

**General Chemistry** 

Analysis Batch: 86399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	150.1
240-24550-1 DU	WW-17303-051613-CT-001	Total/NA	Water	150.1
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	150.1
LCS 240-86399/2	Lab Control Sample	Total/NA	Water	150.1

Prep Batch: 87701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	Distill/Phenol	
240-24550-1 MS	WW-17303-051613-CT-001	Total/NA	Water	Distill/Phenol	
240-24550-1 MSD	WW-17303-051613-CT-001	Total/NA	Water	Distill/Phenol	
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	Distill/Phenol	
LCS 240-87701/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 240-87701/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Analysis Batch: 87707					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1	WW-17303-051613-CT-001	Total/NA	Water	420.1	87701

TestAmerica Canton

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# **QC Association Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

# **General Chemistry (Continued)**

#### **Analysis Batch: 87707 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24550-1 MS	WW-17303-051613-CT-001	Total/NA	Water	420.1	87701
240-24550-1 MSD	WW-17303-051613-CT-001	Total/NA	Water	420.1	87701
240-24550-2	W-17303-051613-CT-002	Total/NA	Water	420.1	87701
LCS 240-87701/2-A	Lab Control Sample	Total/NA	Water	420.1	87701
MB 240-87701/1-A	Method Blank	Total/NA	Water	420.1	87701

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

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

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

53 - 127

Prep Type: Total/NA

Prep Type: Total/NA

Matrix: Water Analysis Batch: 87797

Lab Sample ID: MB 240-87797/5

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/30/13 11:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/30/13 11:33	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			05/30/13 11:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			05/30/13 11:33	1
Benzene	1.0	U	1.0	0.13	ug/L			05/30/13 11:33	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			05/30/13 11:33	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			05/30/13 11:33	1
Chloroform	1.0	U	1.0	0.16	ug/L			05/30/13 11:33	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			05/30/13 11:33	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			05/30/13 11:33	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/30/13 11:33	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/30/13 11:33	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 93 63 - 129 05/30/13 11:33 4-Bromofluorobenzene (Surr) 82 66 - 117 05/30/13 11:33 Toluene-d8 (Surr) 87 74 - 115 05/30/13 11:33 Dibromofluoromethane (Surr) 83 75 - 121 05/30/13 11:33

Lab Sample ID: LCS 240-87797/4

Matrix: Water

Vinyl chloride

Analysis Batch: 87797

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1-Dichloroethene	10.0	9.02		ug/L		90	78 - 131	
cis-1,2-Dichloroethene	10.0	8.88		ug/L		89	80 _ 113	
1,2-Dichloroethane	10.0	9.93		ug/L		99	71 - 127	
1,4-Dichlorobenzene	10.0	9.24		ug/L		92	82 <sub>-</sub> 110	
Benzene	10.0	9.33		ug/L		93	83 - 112	
Carbon tetrachloride	10.0	8.05		ug/L		81	66 - 128	
Chlorobenzene	10.0	9.51		ug/L		95	85 <sub>-</sub> 110	
Chloroform	10.0	8.82		ug/L		88	79 <sub>-</sub> 117	
2-Butanone (MEK)	20.0	22.9		ug/L		114	60 _ 126	
Tetrachloroethene	10.0	9.77		ug/L		98	79 - 114	
Trichloroethene	10.0	9.77		ug/L		98	76 <sub>-</sub> 117	

7.50

ug/L

10.0

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Toluene-d8 (Surr)	88		74 - 115
Dibromofluoromethane (Surr)	83		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

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

Lab Sample ID: MB 240-87987/5

**Matrix: Water** 

Analysis Batch: 87987

Lab Sample ID: LCS 240-87987/4

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			05/31/13 11:23	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			05/31/13 11:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.13	ug/L			05/31/13 11:23	1
Benzene	1.0	U	1.0	0.13	ug/L			05/31/13 11:23	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			05/31/13 11:23	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			05/31/13 11:23	1
Chloroform	1.0	U	1.0	0.16	ug/L			05/31/13 11:23	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			05/31/13 11:23	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			05/31/13 11:23	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			05/31/13 11:23	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			05/31/13 11:23	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		63 - 129		05/31/13 11:23	1
4-Bromofluorobenzene (Surr)	85		66 - 117		05/31/13 11:23	1
Toluene-d8 (Surr)	88		74 - 115		05/31/13 11:23	1
Dibromofluoromethane (Surr)	80		75 - 121		05/31/13 11:23	1

**Client Sample ID: Lab Control Sample** 

**Matrix: Water Prep Type: Total/NA** Analysis Batch: 87987

Spike	LCS	LCS				%Rec.
Added	Result	Qualifier	Unit	D	%Rec	Limits
10.0	9.49		ug/L		95	78 - 131
10.0	9.41		ug/L		94	71 <sub>-</sub> 127
10.0	9.28		ug/L		93	82 - 110
10.0	9.82		ug/L		98	83 - 112
10.0	8.91		ug/L		89	66 - 128
10.0	9.84		ug/L		98	85 - 110
10.0	9.21		ug/L		92	79 <sub>-</sub> 117
20.0	17.4		ug/L		87	60 - 126
10.0	10.2		ug/L		102	79 - 114
10.0	10.2		ug/L		102	76 <sub>-</sub> 117
10.0	7.52		ug/L		75	53 - 127
	Added  10.0  10.0  10.0  10.0  10.0  10.0  10.0  10.0  10.0  10.0  20.0  10.0  10.0	Added         Result           10.0         9.49           10.0         9.41           10.0         9.28           10.0         8.91           10.0         9.84           10.0         9.21           20.0         17.4           10.0         10.2           10.0         10.2	Added         Result         Qualifier           10.0         9.49           10.0         9.41           10.0         9.28           10.0         9.82           10.0         8.91           10.0         9.84           10.0         9.21           20.0         17.4           10.0         10.2           10.0         10.2	Added         Result         Qualifier         Unit           10.0         9.49         ug/L           10.0         9.41         ug/L           10.0         9.28         ug/L           10.0         9.82         ug/L           10.0         8.91         ug/L           10.0         9.84         ug/L           10.0         9.21         ug/L           20.0         17.4         ug/L           10.0         10.2         ug/L           10.0         10.2         ug/L	Added         Result         Qualifier         Unit         D           10.0         9.49         ug/L         ug/L           10.0         9.41         ug/L         ug/L           10.0         9.28         ug/L         ug/L           10.0         8.91         ug/L         ug/L           10.0         9.84         ug/L         ug/L           20.0         17.4         ug/L         ug/L           10.0         10.2         ug/L         ug/L           10.0         10.2         ug/L         ug/L	Added         Result         Qualifier         Unit         D         %Rec           10.0         9.49         ug/L         95           10.0         9.41         ug/L         94           10.0         9.28         ug/L         93           10.0         9.82         ug/L         89           10.0         9.84         ug/L         98           10.0         9.21         ug/L         92           20.0         17.4         ug/L         87           10.0         10.2         ug/L         102           10.0         10.2         ug/L         102

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		63 - 129
4-Bromofluorobenzene (Surr)	84		66 - 117
Toluene-d8 (Surr)	90		74 - 115
Dibromofluoromethane (Surr)	82		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

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Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-87046/13-A

Matrix: Water

Analysis Batch: 87211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 87046

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.044	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1221	0.10	U	0.10	0.045	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1232	0.10	U	0.10	0.073	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1242	0.10	U	0.10	0.060	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1248	0.10	U	0.10	0.061	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1254	0.10	U	0.10	0.032	ug/L		05/23/13 08:33	05/24/13 05:33	1
Aroclor-1260	0.10	U	0.10	0.038	ug/L		05/23/13 08:33	05/24/13 05:33	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		35 - 137	05/23/13 08:33	05/24/13 05:33	1
DCB Decachlorobiphenyl	83		10 - 140	05/23/13 08:33	05/24/13 05:33	1

Lab Sample ID: LCS 240-87046/14-A

Client Sample ID: Lab Control Sample
Matrix: Water

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 87211

Spike

Prep Type: Total/NA

Prep Batch: 87046

Rec.

	<b>Spike</b>	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aroclor-1016	 2.50	1.88		ug/L		75	56 - 130	
Aroclor-1260	2.50	2.27		ug/L		91	43 - 126	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	67		35 - 137
DCB Decachlorobiphenyl	72		10 - 140

#### Method: 150.1 - pH (Electrometric)

Lab Sample ID: LCS 240-86399/2

Matrix: Water

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

Analysis Batch: 86399

	Spike		_CS			%Rec.	
Analyte	Added	Result C	Qualifier (	Jnit I	D %R	ec Limits	
pH	5.52	5.560		SU -	1	01 97 - 103	

Lab Sample ID: 240-24550-1 DU

Matrix: Water

Client Sample ID: WW-17303-051613-CT-001

Prep Type: Total/NA

Analysis Batch: 86399

7 manyolo Batom occor										
	Sample	Sample	DU	DU					RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit	
pH	6.90	HF	 6.900		SU		 	0	20	

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Lab Sample ID: MB 240-87701/1-A

**Matrix: Water** 

**Analysis Batch: 87707** 

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Method: 420.1 - Phenolics, Total Recoverable

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 87701

Result Qualifier RL MDL Unit Analyte D Prepared Dil Fac Analyzed 0.0073 mg/L 0.040 05/29/13 08:00 05/29/13 15:45 Phenols, Total 0.040 U

Lab Sample ID: LCS 240-87701/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** Prep Batch: 87701 **Analysis Batch: 87707** 

мв мв

LCS LCS Spike Added Analyte Result Qualifier Unit %Rec Limits Phenols, Total 1.10 0.907 mg/L 82 54 - 137

Lab Sample ID: 240-24550-1 MS Client Sample ID: WW-17303-051613-CT-001

**Matrix: Water** Prep Type: Total/NA **Analysis Batch: 87707** Prep Batch: 87701 Spike MS MS

Sample Sample %Rec. Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Phenols, Total 0.040 U 0.100 0.0611 10 - 155 mg/L

Lab Sample ID: 240-24550-1 MSD Client Sample ID: WW-17303-051613-CT-001

**Matrix: Water** Prep Type: Total/NA **Analysis Batch: 87707** Prep Batch: 87701

Sample Sample RPD Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits

Limit Phenols, Total 0.040 U 0.100 0.0554 mg/L 55 10 - 155 10 20 ourrogato ourrina

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

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

Matrix: Water Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)									
		12DCE	BFB	TOL	DBFM	TOL	TOL	DBFM	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-117)	(74-115)	(75-121)	(74-115)	(74-115)	(75-121)	(75-121)
240-24550-1 - RA	WW-17303-051613-CT-001	90	81	89	78	89	89	78	78
240-24550-1	WW-17303-051613-CT-001	82	82	90	79	90	90	79	79
240-24550-2 - RA	W-17303-051613-CT-002	90	83	91	80	91	91	80	80
240-24550-2	W-17303-051613-CT-002	85	82	91	80	91	91	80	80
240-24550-3	TB-17303-051613	90	79	91	78	91	91	78	78
LCS 240-87797/4	Lab Control Sample	87	83	88	83	88	88	83	83
LCS 240-87987/4	Lab Control Sample	85	84	90	82	90	90	82	82
MB 240-87797/5	Method Blank	93	82	87	83	87	87	83	83
MB 240-87987/5	Method Blank	86	85	88	80	88	88	80	80

#### **Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

#### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

		TCX2	DCB2
Lab Sample ID	Client Sample ID	(35-137)	(10-140)
240-24550-1	WW-17303-051613-CT-001	67	23
240-24550-2	W-17303-051613-CT-002	73	24
LCS 240-87046/14-A	Lab Control Sample	67	72
MB 240-87046/13-A	Method Blank	73	83

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

TestAmerica Canton

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Client Sample ID: WW-17303-051613-CT-001

Lab Sample ID: 240-24550-1

**Matrix: Water** 

Date Collected: 05/16/13 13:35 Date Received: 05/17/13 09:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	87797	05/30/13 13:49	LE	TAL CAN
Total/NA	Analysis	8260B		1.67	87987	05/31/13 11:46	LE	TAL CAN
Total/NA	Prep	3510C			87046	05/23/13 08:33	SE	TAL CAN
Total/NA	Analysis	8082		1	87211	05/24/13 06:20	CV	TAL CAN
Total/NA	Analysis	150.1		1	86399	05/17/13 15:45	BW	TAL CAN
Total/NA	Prep	Distill/Phenol			87701	05/29/13 08:00	JK	TAL CAN
Total/NA	Analysis	420.1		1	87707	05/29/13 15:46	JK	TAL CAN

Lab Sample ID: 240-24550-2

Client Sample ID: W-17303-051613-CT-002

Date Collected: 05/16/13 13:45 **Matrix: Water** Date Received: 05/17/13 09:20

Batch Dilution Batch Prepared Туре Method Factor Number or Analyzed Lab **Prep Type** Run Analyst RA Total/NA Analysis 8260B 87797 05/30/13 14:11 LE TAL CAN Total/NA Analysis 8260B 1.67 87987 05/31/13 12:08 LE TAL CAN Total/NA Prep 3510C 05/23/13 08:33 SE TAL CAN 87046 TAL CAN Total/NA 8082 Analysis 1 87211 05/24/13 06:36 CV Total/NA Analysis 150.1 86399 05/17/13 15:55 TAL CAN Total/NA TAL CAN Prep Distill/Phenol 87701 05/29/13 08:00 .lK Total/NA Analysis 420.1 87707 05/29/13 15:48 JK TAL CAN

Client Sample ID: TB-17303-051613 Lab Sample ID: 240-24550-3

Date Collected: 05/16/13 00:00 Matrix: Water Date Received: 05/17/13 09:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	<del></del>	1	87797	05/30/13 14:34	LE	TAL CAN
Total/NA	Analysis	8260B		1	87797	05/30/13 14:34	LE	TAL CAN

**Laboratory References:** 

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

# **Certification Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-24550-1

#### **Laboratory: TestAmerica Canton**

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

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>	
California	NELAP	9	01144CA	06-30-13	
Connecticut	State Program	1	PH-0590	12-31-13	
Florida	NELAP	4	E87225	06-30-13	
Georgia	State Program	4	N/A	06-30-13	
Illinois	NELAP	5	200004	07-31-13	
Kansas	NELAP	7	E-10336	01-31-14	
Kentucky	State Program	4	58	06-30-13	
L-A-B	DoD ELAP		L2315	07-28-13	
Minnesota	NELAP	5	039-999-348	12-31-13	
Nevada	State Program	9	OH-000482008A	07-31-13	
New Jersey	NELAP	2	OH001	06-30-13	
New York	NELAP	2	10975	04-01-14	
Ohio VAP	State Program	5	CL0024	01-19-14	
Pennsylvania	NELAP	3	68-00340	08-31-13	
Texas	NELAP	6		08-03-13	
USDA	Federal		P330-11-00328	08-26-14	
Virginia	NELAP	3	460175	09-14-13	
Washington	State Program	10	C971	01-12-14	
West Virginia DEP	State Program	3	210	12-31-13	
Wisconsin	State Program	5	999518190	08-31-13	

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# CHAIN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170 Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO.: PL-12478

PAGE\_OF\_

(See Reverse Side for Instructions)

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YELLOW - Receiving Laboratory Copy

WHITE - Fully Executed Copy (CRA)

Distribution:

DINK-Shipper

GOLDENROD - Sampling Crew

CRA Form: COC-10A (20110804)

Temperature readings:					
Client Sample ID	<u>Lab ID</u>	Container Type	Container pH	Preservative Added (mls)	<u>Lot #</u>
WW-17303-051613-CT-001	240-24550-J-1	Amber Glass 250ml - Sulfuric Acid	<2		
WW-17303-051613-CT-001	240-24550-K-1	Amber Glass 250ml - Sulfuric Acid	<2		
WW-17303-051613-CT-001	240-24550-L-1	Amber Glass 250ml - Sulfuric Acid	<2	ter follows and the second state of the second	No. document of the contract o
W-17303-051613-CT-002	240-24550-D-2	Amber Glass 250ml - Sulfuric Acid	>2		

TestAmerica Canton Sample Receipt Form/Narrative Lo Canton Facility	gin # :
Client Site Name	Cooler unpacked by:
Cooler Received on 5-17-13 Opened on 5-17-13	
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier TestAmerica Cooler # Foam Box Client Ceeler Box Other Packing material used: Bubble Wrap Foam Plastic Bag None Other COOLANT: Wet Toe Blue Ice Dry Ice Water None	Other
1. Cooler temperature upon receipt  IR GUN# 1 (CF -0 °C) Observed Cooler Temp. °C Corrected Cooler  IR GUN# 4G (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler  IR GUN# 5G (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler  IR GUN# 8 (CF +1 °C) Observed Cooler Temp. <u>% 1 °C</u> Corrected Cooler	Temp. °C See Multiple Temp. °C Cooler Form Temp. 3.1 °C
-Were custody seals on the outside of the cooler(s) signed & dated? -Were custody seals on the bottle(s)?	Yes Moo Yes No MA Yes Moo
4. Did custody papers accompany the sample(s)?	Yes No Yes No Yes No
7. Could all bottle labels be reconciled with the COC?  8. Were correct bottle(s) used for the test(s) indicated?  9. Sufficient quantity received to perform indicated analyses?  10. Were sample(s) at the correct pH upon receipt?  11. Were VOAs on the COC?  12. Were air bubbles >6 mm in any VOA vials?	Yes No NA pH Strip Lot# HC379740 Yes No Yes No Yes No
Contacted PM Date by via Verbal Concerning	Voice Mail Other
14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	Samples processed by:
Sample(s) were received after the recommended he sample(s) were received with bubble >6 m	ved in a broken container.
16. SAMPLE PRESERVATION	The same of the sa
Sample(s) were	further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):	



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: 240-25989-1

Client Project/Site: 17303-T02-018, RACER CVO

#### For:

Conestoga-Rovers & Associates, Inc. 14496 Sheldon Road, Suite 200 Plymouth, Michigan 48170

Attn: Mr. Paul Wiseman

Denise DHeckler

Authorized for release by: 7/9/2013 10:16:31 AM

Denise Heckler, Project Manager II denise.heckler@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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QC Sample Results	14
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#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

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Job ID: 240-25989-1

**Laboratory: TestAmerica Canton** 

Narrative

#### **CASE NARRATIVE**

Client: Conestoga-Rovers & Associates, Inc.

Project: 17303-T02-018, RACER CVO

Report Number: 240-25989-1

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 06/21/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was  $2.5 \, \text{C}$ .

#### **VOLATILE ORGANIC COMPOUNDS (GCMS)**

Samples WW-17303-062013-SK-001 (240-25989-1) and TB-17303-062013-SK-002 (240-25989-2) were analyzed for volatile organic compounds (GCMS) in accordance with EPA Method 624. The samples were analyzed on 06/27/2013.

Acetone and Methyl acetate were detected in method blank MB 240-91596/4 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.

Sample WW-17303-062013-SK-001 (240-25989-1)[2X] required dilution prior to analysis due to color and appearance. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analysis.

All other quality control parameters were within the acceptance limits.

#### POLYCHLORINATED BIPHENYLS (PCBS)

#### **Case Narrative**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

#### Job ID: 240-25989-1 (Continued)

#### **Laboratory: TestAmerica Canton (Continued)**

Sample WW-17303-062013-SK-001 (240-25989-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 06/27/2013 and analyzed on 07/01/2013.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 91699.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

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# **Definitions/Glossary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

**Qualifier Description** 

TestAmerica Job ID: 240-25989-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier

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

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

#### **GC Semi VOA**

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

## **Glossary**

RPD

TEF

TEQ

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)

# **Sample Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-25989-1	WW-17303-062013-SK-001	Water	06/20/13 12:50	06/21/13 09:30
240-25989-2	TB-17303-062013-SK-002	Water	06/20/13 00:00	06/21/13 09:30

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# **Detection Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

Client Sample ID: WW-17303-062013-SK-001

Lab	Sampl	e ID:	240-	25989-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,2-Dichloroethane	7.2	2.0	0.44 ug/L		624	Total/NA

# Client Sample ID: TB-17303-062013-SK-002 Lab Sample ID: 240-25989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	В	10	1.1	ug/L	1	_	624	Total/NA
Methyl acetate	0.55	JB	1.0	0.38	ug/L	1		624	Total/NA

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# **Method Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN

#### Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

#### Laboratory References:

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

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

# Method: 624 - Volatile Organic Compounds (GC/MS)

Client Sample ID: WW-17303-062013-SK-001	Lab Sample ID: 240-25989-1
Date Collected: 06/20/13 12:50	Matrix: Water

Date Received: 06/21/13 09:30									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	2.0	U	2.0	0.44	ug/L			06/27/13 04:45	2
1,2-Dichloroethane	7.2		2.0	0.44	ug/L			06/27/13 04:45	2
Trichloroethene	2.0	U	2.0	0.34	ug/L			06/27/13 04:45	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		81 - 112		06/27/13 04:45	2
1,2-Dichloroethane-d4 (Surr)	90		80 - 125		06/27/13 04:45	2
Toluene-d8 (Surr)	97		84 - 110		06/27/13 04:45	2

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Client Sample ID: TB-17303-062013-SK-002

Date Collected: 06/20/13 00:00

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab	Sample	ID:	240-2	25989-
Lub	Oumpio			-0000

ab Sample	ID: 240-25989-2
	Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			06/27/13 07:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			06/27/13 07:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.28	ug/L			06/27/13 07:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ug/L			06/27/13 07:48	1
1,1-Dichloroethane	1.0	U	1.0	0.15	ug/L			06/27/13 07:48	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			06/27/13 07:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.15	ug/L			06/27/13 07:48	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.67	ug/L			06/27/13 07:48	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			06/27/13 07:48	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			06/27/13 07:48	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			06/27/13 07:48	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			06/27/13 07:48	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			06/27/13 07:48	1
2-Hexanone	10	U	10		ug/L			06/27/13 07:48	1
Acetone	10	В	10		ug/L			06/27/13 07:48	1
m-Xylene & p-Xylene	1.0		1.0		ug/L			06/27/13 07:48	1
o-Xylene	1.0		1.0		ug/L			06/27/13 07:48	1
Benzene	1.0		1.0		ug/L			06/27/13 07:48	1
Bromoform	1.0		1.0		ug/L			06/27/13 07:48	1
Bromomethane	1.0		1.0		ug/L			06/27/13 07:48	1
Carbon disulfide	1.0		1.0		ug/L			06/27/13 07:48	1
Carbon tetrachloride	1.0		1.0		ug/L			06/27/13 07:48	1
Chlorobenzene	1.0		1.0		ug/L			06/27/13 07:48	. 1
Chloroethane	1.0		1.0		ug/L			06/27/13 07:48	1
Chloroform	1.0		1.0		ug/L			06/27/13 07:48	1
Chloromethane	1.0		1.0		ug/L			06/27/13 07:48	1
cis-1,2-Dichloroethene	1.0		1.0		ug/L			06/27/13 07:48	1
cis-1,3-Dichloropropene	1.0		1.0		ug/L			06/27/13 07:48	1
Cyclohexane	1.0		1.0		ug/L			06/27/13 07:48	. 1
Bromodichloromethane	1.0		1.0		ug/L			06/27/13 07:48	1
Dichlorodifluoromethane	1.0		1.0		ug/L			06/27/13 07:48	1
Ethylbenzene	1.0		1.0		ug/L			06/27/13 07:48	1
1,2-Dibromoethane	1.0		1.0		ug/L			06/27/13 07:48	1
Isopropylbenzene	1.0		1.0		ug/L			06/27/13 07:48	
Methyl acetate	0.55		1.0		ug/L			06/27/13 07:48	1
2-Butanone (MEK)	10		1.0		ug/L			06/27/13 07:48	1
4-Methyl-2-pentanone (MIBK)	10		10		ug/L			06/27/13 07:48	
Methyl tert-butyl ether	1.0		1.0		ug/L			06/27/13 07:48	1
Methylene Chloride	1.0		1.0		ug/L			06/27/13 07:48	1
	1.0								' 1
Styrene	1.0		1.0 1.0		ug/L ug/L			06/27/13 07:48	1
Tetrachloroethene Toluene	1.0		1.0		ug/L			06/27/13 07:48 06/27/13 07:48	1
trans-1,2-Dichloropethene	1.0 1.0		1.0 1.0		ug/L			06/27/13 07:48	1
trans-1,3-Dichloropropene					ug/L			06/27/13 07:48	
Trichlorofluoromethone	1.0		1.0		ug/L			06/27/13 07:48	1
Trichlorofluoromethane	1.0		1.0		ug/L			06/27/13 07:48	1
Vilonea Total	1.0		1.0		ug/L			06/27/13 07:48	1
Xylenes, Total Methylcyclohexane	3.0		3.0		ug/L ug/L			06/27/13 07:48 06/27/13 07:48	1

TestAmerica Canton

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

Lab Sample ID: 240-25989-2

Analyzed

**Matrix: Water** 

Dil Fac

#### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

<b>Client Sample</b>	ID: TB-17303	-062013-SK-002
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Date Collected: 06/20/13 00:00

Analyte

Date Received: 06/21/13 09:30 RL Result Qualifier MDL Unit D Prepared

Dibromochloromethane	1.0	U	1.0	0.18 ug/L		06/27/13 07:48	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		80 - 125			06/27/13 07:48	1
4-Bromofluorobenzene (Surr)	94		81 - 112			06/27/13 07:48	1
Toluene-d8 (Surr)	101		84 - 110			06/27/13 07:48	1

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

## Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WW-17303-062013-SK-001 Lab Sample ID: 240-25989-1 Date Collected: 06/20/13 12:50

Date Received: 06/21/13 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.042	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1221	0.095	U	0.095	0.043	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1242	0.095	U	0.095	0.057	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1248	0.095	U	0.095	0.058	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1254	0.095	U	0.095	0.030	ug/L		06/27/13 11:27	07/01/13 17:09	1
Aroclor-1260	0.095	U	0.095	0.036	ug/L		06/27/13 11:27	07/01/13 17:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	10	10 - 114	06/27/13 11:27	07/01/13 17:09	1
Tetrachloro-m-xylene	76	15 - 131	06/27/13 11:27	07/01/13 17:09	1

**Matrix: Water** 

# **QC Association Summary**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

#### **GC/MS VOA**

#### Analysis Batch: 91596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-25989-1	WW-17303-062013-SK-001	Total/NA	Water	624	
240-25989-2	TB-17303-062013-SK-002	Total/NA	Water	624	
LCS 240-91596/5	Lab Control Sample	Total/NA	Water	624	
MB 240-91596/4	Method Blank	Total/NA	Water	624	

#### GC Semi VOA

#### Prep Batch: 91699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-25989-1	WW-17303-062013-SK-001	Total/NA	Water	3520C	<u> </u>
LCS 240-91699/11-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-91699/10-A	Method Blank	Total/NA	Water	3520C	

#### Analysis Batch: 92162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-25989-1	WW-17303-062013-SK-001	Total/NA	Water	608	91699
LCS 240-91699/11-A	Lab Control Sample	Total/NA	Water	608	91699
MB 240-91699/10-A	Method Blank	Total/NA	Water	608	91699

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Method: 624 - Volatile Organic Compounds (GC/MS)

Client Sample ID: Method Blank

Lab Sample ID: MB 240-91596/4 **Matrix: Water** 

**Prep Type: Total/NA** 

Watita. Water								Fieb Type.	otali iti
Analysis Batch: 91596	•••	•••							
Ameliate		MB	DI.	MDI	l lmi4		Duamanad	A se a le sesa el	Dil Faa
Analyte	1.0	Qualifier	RL 1.0	MDL 0.22		D _	Prepared	Analyzed 06/26/13 19:15	Dil Fac
1,1,1-Trichloroethane	1.0		1.0					06/26/13 19:15	1
1,1,2,2-Tetrachloroethane					ug/L			06/26/13 19:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0		1.0	0.28					1
1,1,2-Trichloroethane	1.0		1.0		ug/L			06/26/13 19:15	1
1,1-Dichloroethane	1.0		1.0		ug/L			06/26/13 19:15	1
1,1-Dichloroethene	1.0		1.0		ug/L			06/26/13 19:15	1
1,2,4-Trichlorobenzene	1.0		1.0		ug/L			06/26/13 19:15	1
1,2-Dibromo-3-Chloropropane	2.0		2.0		ug/L			06/26/13 19:15	1
1,2-Dichlorobenzene	1.0		1.0		ug/L			06/26/13 19:15	
1,2-Dichloroethane	1.0		1.0		ug/L			06/26/13 19:15	1
1,2-Dichloropropane	1.0		1.0		ug/L			06/26/13 19:15	1
1,3-Dichlorobenzene	1.0		1.0	0.14	ug/L			06/26/13 19:15	1
1,4-Dichlorobenzene	1.0		1.0		ug/L			06/26/13 19:15	1
2-Hexanone	2.0	U	2.0	0.41	ug/L			06/26/13 19:15	1
Acetone	1.62	J	2.0	1.1	ug/L			06/26/13 19:15	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			06/26/13 19:15	1
o-Xylene	1.0	U	1.0	0.14	ug/L			06/26/13 19:15	1
Benzene	1.0	U	1.0	0.13	ug/L			06/26/13 19:15	1
Bromoform	1.0	U	1.0	0.64	ug/L			06/26/13 19:15	1
Bromomethane	2.0	U	2.0	0.41	ug/L			06/26/13 19:15	1
Carbon disulfide	1.0	U	1.0	0.13	ug/L			06/26/13 19:15	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			06/26/13 19:15	1
Chlorobenzene	1.0	U	1.0	0.17	ug/L			06/26/13 19:15	1
Chloroethane	2.0	U	2.0	0.29	ug/L			06/26/13 19:15	1
Chloroform	1.0	U	1.0	0.16	ug/L			06/26/13 19:15	1
Chloromethane	2.0	U	2.0	0.30	ug/L			06/26/13 19:15	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.17	ug/L			06/26/13 19:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.14	ug/L			06/26/13 19:15	1
Cyclohexane	1.0	U	1.0	0.12	ug/L			06/26/13 19:15	1
Bromodichloromethane	1.0	U	1.0	0.15	ug/L			06/26/13 19:15	1
Dichlorodifluoromethane	2.0	U	2.0	0.31	ug/L			06/26/13 19:15	1
Ethylbenzene	1.0	U	1.0	0.17				06/26/13 19:15	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			06/26/13 19:15	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/L			06/26/13 19:15	1
Methyl acetate	0.621	J	2.0	0.38	ug/L			06/26/13 19:15	1
2-Butanone (MEK)	2.0		2.0		ug/L			06/26/13 19:15	1
4-Methyl-2-pentanone (MIBK)	2.0		2.0		ug/L			06/26/13 19:15	1
Methyl tert-butyl ether	1.0		1.0		ug/L			06/26/13 19:15	1
Methylene Chloride	2.0		2.0		ug/L			06/26/13 19:15	1
Styrene	1.0		1.0		ug/L			06/26/13 19:15	1
Tetrachloroethene	1.0		1.0		ug/L			06/26/13 19:15	1
Toluene	1.0		1.0		ug/L			06/26/13 19:15	1
trans-1,2-Dichloroethene	0.50		0.50		ug/L			06/26/13 19:15	· 1
trans-1,3-Dichloropropene	1.0		1.0		ug/L			06/26/13 19:15	1
Trichloroethene	1.0		1.0		ug/L			06/26/13 19:15	1
Trichlorofluoromethane	2.0		2.0		ug/L ug/L			06/26/13 19:15	
Vinyl chloride	1.0		1.0		ug/L ug/L			06/26/13 19:15	1
Xylenes, Total	2.0		2.0		ug/L ug/L			06/26/13 19:15	1

TestAmerica Canton

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

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

Matrix: Water

Analysis Batch: 91596

Lab Sample ID: MB 240-91596/4

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.13	ug/L			06/26/13 19:15	1
Dibromochloromethane	1.0	U	1.0	0.18	ug/L			06/26/13 19:15	1

MB MB Surrogate %Recovery Qualifier Prepared Dil Fac Limits Analyzed 1,2-Dichloroethane-d4 (Surr) 92 80 - 125 06/26/13 19:15 4-Bromofluorobenzene (Surr) 94 81 - 112 06/26/13 19:15 Toluene-d8 (Surr) 104 84 - 110 06/26/13 19:15

Lab Sample ID: LCS 240-91596/5

Matrix: Water

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 91596

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
I,1,1-Trichloroethane	20.0	19.7		ug/L		98	52 - 162
,1,2,2-Tetrachloroethane	20.0	26.8		ug/L		134	46 - 157
,1,2-Trichloro-1,2,2-trifluoroetha	20.0	21.8		ug/L		109	
e							
,1,2-Trichloroethane	20.0	22.3		ug/L		111	52 - 150
,1-Dichloroethane	20.0	23.8		ug/L		119	59 - 155
,1-Dichloroethene	20.0	24.4		ug/L		122	10 - 234
,2,4-Trichlorobenzene	20.0	14.0		ug/L		70	
,2-Dibromo-3-Chloropropane	20.0	25.3		ug/L		127	
,2-Dichlorobenzene	20.0	19.9		ug/L		99	18 - 190
,2-Dichloroethane	20.0	16.6		ug/L		83	49 <sub>-</sub> 155
,2-Dichloropropane	20.0	21.3		ug/L		107	10 - 210
,3-Dichlorobenzene	20.0	20.4		ug/L		102	59 _ 156
,4-Dichlorobenzene	20.0	18.8		ug/L		94	18 - 190
-Hexanone	40.0	47.8		ug/L		119	
acetone	40.0	47.1		ug/L		118	
n-Xylene & p-Xylene	40.0	40.7		ug/L		102	
-Xylene	20.0	21.1		ug/L		105	
Benzene	20.0	21.5		ug/L		108	37 _ 151
Bromoform	20.0	19.5		ug/L		98	45 - 169
Bromomethane	20.0	17.6		ug/L		88	10 - 242
Carbon disulfide	20.0	24.3		ug/L		121	
Carbon tetrachloride	20.0	18.9		ug/L		95	70 - 140
Chlorobenzene	20.0	20.3		ug/L		101	37 <sub>-</sub> 160
Chloroethane	20.0	21.7		ug/L		109	14 - 230
Chloroform	20.0	18.8		ug/L		94	51 _ 138
Chloromethane	20.0	22.7		ug/L		114	10 - 273
is-1,2-Dichloroethene	20.0	22.0		ug/L		110	
is-1,3-Dichloropropene	20.0	21.7		ug/L		108	10 - 227
Cyclohexane	20.0	18.1		ug/L		91	
romodichloromethane	20.0	19.8		ug/L		99	35 _ 155
Dichlorodifluoromethane	20.0	18.7		ug/L		94	
Ethylbenzene	20.0	20.7		ug/L		104	37 - 162
I,2-Dibromoethane	20.0	21.3		ug/L		107	· · · · ·
sopropylbenzene	20.0	19.5		ug/L		98	

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Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

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Lab Sample ID: LCS 240-91596/5

**Matrix: Water** 

**Analysis Batch: 91596** 

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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl acetate	20.0	26.7		ug/L		133		
2-Butanone (MEK)	40.0	43.3		ug/L		108	60 - 126	
4-Methyl-2-pentanone (MIBK)	40.0	42.5		ug/L		106		
Methyl tert-butyl ether	20.0	22.8		ug/L		114		
Methylene Chloride	20.0	22.5		ug/L		113	10 - 221	
Styrene	20.0	21.0		ug/L		105	54 - 129	
Tetrachloroethene	20.0	18.2		ug/L		91	64 - 148	
Toluene	20.0	21.9		ug/L		110	47 - 150	
trans-1,2-Dichloroethene	20.0	22.7		ug/L		113	54 - 156	
trans-1,3-Dichloropropene	20.0	25.3		ug/L		127	17 - 183	
Trichloroethene	20.0	18.2		ug/L		91	71 <sub>-</sub> 157	
Trichlorofluoromethane	20.0	21.0		ug/L		105	17 - 181	
Vinyl chloride	20.0	22.5		ug/L		113	10 - 251	
Xylenes, Total	60.0	61.8		ug/L		103		
Methylcyclohexane	20.0	20.0		ug/L		100		
Dibromochloromethane	20.0	21.8		ug/L		109	53 - 149	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		80 - 125
4-Bromofluorobenzene (Surr)	100		81 - 112
Toluene-d8 (Surr)	102		84 - 110

#### Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-91699/10-A

Matrix: Water

Analysis Batch: 92162

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

Prep Batch: 91699

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.044	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1221	0.10	U	0.10	0.045	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1232	0.10	U	0.10	0.073	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1242	0.10	U	0.10	0.060	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1248	0.10	U	0.10	0.061	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1254	0.10	U	0.10	0.032	ug/L		06/27/13 11:27	07/01/13 18:08	1
Aroclor-1260	0.10	U	0.10	0.038	ug/L		06/27/13 11:27	07/01/13 18:08	1

	MB	MB					
Surrogate	%Recovery	Qualifier	Limits	Prep	pared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		10 - 114	06/27/1	13 11:27	07/01/13 18:08	1
Tetrachloro-m-xvlene	88		15 - 131	06/27/1	13 11:27	07/01/13 18:08	1

Lab Sample ID: LCS 240-91699/11-A

**Matrix: Water** 

Analysis Batch: 92162

<b>Client Sample ID</b>	: Lab Control Sample
	Prep Type: Total/NA
	Prep Batch: 91699

Analysis batch. 92102							rieh	Datell. 910	99
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Aroclor-1016	2.50	2.35		ug/L	_	94	50 - 114		_

TestAmerica Canton

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# **QC Sample Results**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

TestAmerica Job ID: 240-25989-1

#### Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-91699/11-A			Client Sample ID: Lab Control Sample
Matrix: Water			Prep Type: Total/NA
Analysis Batch: 92162			Prep Batch: 91699
	Cnika	100 100	9/ Pag

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aroclor-1260	2.50	2.38		ug/L		95	8 - 127	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	78		10 - 114
Tetrachloro-m-xylene	87		15 - 131

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO TestAmerica Job ID: 240-25989-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

	Percent Surrogate R						
		BFB	12DCE	TOL			
Lab Sample ID	Client Sample ID	(81-112)	(80-125)	(84-110)			
240-25989-1	WW-17303-062013-SK-001	95	90	97			
240-25989-2	TB-17303-062013-SK-002	94	91	101			
LCS 240-91596/5	Lab Control Sample	100	94	102			
MB 240-91596/4	Method Blank	94	92	104			

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water Prep Type: Total/NA

•			
		DCB2	TCX2
Lab Sample ID	Client Sample ID	(10-114)	(15-131)
240-25989-1	WW-17303-062013-SK-001	10	76
LCS 240-91699/11-A	Lab Control Sample	78	87
MB 240-91699/10-A	Method Blank	76	88
Surrogate Legend			

DCB = DCB Decachlorobiphenyl TCX = Tetrachloro-m-xylene

TestAmerica Canton

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#### **Lab Chronicle**

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

Client Sample ID: WW-17303-062013-SK-001

TestAmerica Job ID: 240-25989-1

Lab Sample ID: 240-25989-1

Matrix: Water

Date Collected: 06/20/13 12:50 Date Received: 06/21/13 09:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624			91596	06/27/13 04:45	TJL1	TAL CAN
Total/NA	Prep	3520C			91699	06/27/13 11:27	BPM	TAL CAN
Total/NA	Analysis	608		1	92162	07/01/13 17:09	LSH	TAL CAN

Client Sample ID: TB-17303-062013-SK-002 Lab Sample ID: 240-25989-2

Date Collected: 06/20/13 00:00 Matrix: Water

Date Received: 06/21/13 09:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	91596	06/27/13 07:48	TJL1	TAL CAN

**Laboratory References:** 

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

# **Certification Summary**

**EPA Region** 

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**Certification ID** 

PH-0590

E87225

200004

E-10336

L2315

OH001

10975

CL0024

460175

999518190

C971

68-00340

P330-11-00328

039-999-348

OH-000482008A

58

Client: Conestoga-Rovers & Associates, Inc. Project/Site: 17303-T02-018, RACER CVO

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

Program

**NELAP** 

NELAP

**NELAP** 

**NELAP** 

NELAP

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**NELAP** 

**NELAP** 

Federal

**NELAP** 

State Program

DoD ELAP

**Laboratory: TestAmerica Canton** 

Authority

Florida

Georgia

Kentucky

Minnesota

New Jersey

New York

Ohio VAP

Texas

USDA

Virginia

Washington

Wisconsin

Pennsylvania

Nevada

Illinois Kansas

L-A-B

Connecticut

TestAmerica Job ID: 240-25989-1

**Expiration Date** 

12-31-13

06-30-14

06-30-14

07-31-13

01-31-14

06-30-14

07-28-13

12-31-13

07-31-13

06-30-14

04-01-14

01-19-14

08-31-13

08-03-13

08-26-14

09-14-13

01-12-14

08-31-13

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CHAİN OF CUSTODY RECORD

14496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

CONESTOGA-ROVERS & ASSOCIATES

Fax: (734) 453-5201

Phone: (734) 453-5123

COC NO.: **PL-11413**PAGE 1. OF 1

(See Reverse Side for Instructions)

ssowid: 17303-T02-018 SPECIAL INSTRUCTIONS: 7326 TIME 930 6-20-13 COMMENTS/ 8010 4751 Date Shipped: FED EX Airbill No: G-21-13 Cooler No: DATE Carrier: 240-25989 Cháin of Custody MS/MSD Request ANALYSIS REQUESTED
(See Back of COC for Definitions) COMPANY せつ Notes/ Special Requirements: N. Canton Lab Quote No: THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT — ALL FIELDS MUST BE COMPLETED ACCURATELY Lab Location. TCL VOCS × X 1+817 70A Total Number of Containers: | Total Containers/Sample Ś All Samples in Cooler must be on COC CONTAINER QUANTITY & EnCores 3x5-g, 1x25-g PRESERVATION Methanol/Water (Soil Laboratory Name: Test America D. Heckler Sodium Hydroxide (NaOH) Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) 18:00 Nifric Acid (HNO<sub>3</sub>) Hydrochloric Acid (HCI) 3 Lab Contact: **Nubreserved** J 6-20-13 Grab (G) or Comp (C) 3 (see back of COC) P 12:50 TIME TAT Required in business days (use separate COCs for different TATs): □ 1 Day □ 2 Days □ 3 Days □ 1 Week 🕦 2 Week □ Other. 6-20-13 6-20-13 DATE CRA 017303 - TOZ - 01412 78-17303-062013-5K-002 WW-17303-062013-5k-001 Chemistry Contact: 1951 12041 M. I. Paul Wiseman Seott Kippen SAMPLE IDENTIFICATION RELINQUISHED BY Project No/ Phase/Task Code: CVO Project Location: Project Name: Sampler(s): wen œ თ ۰ 0 - ო 2 2 9 7

WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew

CRA Form: COC-10A (20110804)

Distribution:

7/9/2013

TestAmerica Canton Sample Re Canton Facility		.,	in # : 25986  Cooler unpact	l de la constant
_	Site Name		. *	·
1. Cooler temperature upon receip IR GUN# A (CF -1 °C) OF IR GUN# 4 (CF 0 °C) OF IR GUN# 5 (CF +1 °C) OF IR GUN# 8 (CF -0 °C) OF 2. Were custody seals on the outsi	AS Stetson Client Drop Off Foam Box Client Cooler le Wrap Foam Plastic Bag Blue Ice Dry Ice Water of the Served Cooler Temp. °C observed Cooler Te	TestAmerica Courier  Box Other  None Other  Torrected Cooler Torrected Coo	Cemp. °C Cemp. °C Cemp. °C Cemp. °C Cemp. °C	_
	uished & signed in the appropriate ondition (Unbroken)? ciled with the COC? the test(s) indicated? perform indicated analyses? H upon receipt?		es) No  9-No 9s No es No es No	Strip Lot# <u>HC376062</u>
Contacted PM Da	teby	via Verbal	Voice Mail Other	
Concerning				
4. CHAIN OF CUSTODY & SA	MPLE DISCREPANCIES		Samples pr	ocessed by:

14. CHAIN OF CUSTODY	& SAMPLE DISCREPANCIES	Samples processed by:
15. SAMPLE CONDITION		
Sample(s)	were received after the recommended holding time had expired.	
	were received in a broken container.	
Sample(s)	were received with bubble >6 n	nm in diameter. (Notify PM)
16. SAMPLE PRESERVAT	ION	
Sample(s)	wer	e further preserved in the laboratory.
Time preserved:	Preservative(s) added/Lot number(s):	