



**CONESTOGA-ROVERS
& ASSOCIATES**

14496 Sheldon Road, Suite 200, Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

March 11, 2015

Reference No. 012607

Ms. Tessy Jose
City of Detroit
Water and Sewerage Department
Industrial Waste Control Division
303 S. Livernois Avenue
Detroit, Michigan 48209

Dear Ms. Jose:

Re: DWSD Semi-Annual Report
(September 2014 through February 2015)
12950 Eckles Road
Livonia, Michigan 48150
Permit No.: SD6-94508

Conestoga-Rovers & Associates, Inc. (CRA) is providing the attached documents for the reporting requirements of Special Discharge Permit SD6-94508 for the period of September 2014 through February 2015.

Special Discharge Permit SD6-94508 was issued in June 2011 and is effective July 1, 2011 through June 30, 2015.

SECTION D: REPORTING REQUIREMENTS

- Reporting Period: September 1, 2014 to February 28, 2015
- Dates of Sampling: September 17, 2014; October 22, 2014; November 12, 2014; December 10, 2014; January 14, 2015; and February 11, 2015
- All samples were collected from the effluent sampling port of Tank T12
- Total Monthly Discharges:
 - September 2014: 855,515
 - October 2014: 1,215,670
 - November 2014: 1,018,383
 - December 2014: 854,208
 - January 2015: 836,977
 - February 2015: 475,073

Equal
Employment Opportunity
Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN



**CONESTOGA-ROVERS
& ASSOCIATES**

March 11, 2015

Reference No. 012607

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- Total Flow to Date: 160,784,933 gallons
- Signature of CRA's authorized representative who is knowledgeable of the remediation site's discharge

CRA certifies that the discharge complied with the permit discharge limits.

Please contact me at (734) 453-5123 if you require further information or clarification.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Meincke, P.E.

CM/ds/9/Det.
Encl.

cc: Dave Favero, RACER

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - September 2014

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
09/01/14	None	None	On-Site	14,386	
09/02/14	None	None	On-Site	64,043	
09/03/14	None	None	On-Site	49,521	
09/04/14	None	None	On-Site	55,972	
09/05/14	None	None	On-Site	55,598	
09/06/14	None	None			
09/07/14	None	None			
09/08/14	None	None	On-Site	1,724	
09/09/14	None	None	On-Site	54,727	
09/10/14	None	None	On-Site	53,123	
09/11/14	None	None	On-Site	59,632	
09/12/14	None	None	On-Site	40,197	
09/13/14	None	None			
09/14/14	None	None			
09/15/14	None	None	On-Site	2,888	
09/16/14	None	None	On-Site	70,288	
09/17/14	None	None	On-site & Sampled	52,992	
09/18/14	None	None	On-Site	58,877	
09/19/14	None	None	On-Site	51,164	
09/20/14	None	None			
09/21/14	None	None			
09/22/14	None	None	On-Site	1,593	
09/23/14	None	None	On-Site	93,342	
09/24/14	None	None	On-Site	75,448	
09/25/14	None	None			System down - no mag lime
09/26/14	None	None			System down - no mag lime
09/27/14	None	None			
09/28/14	None	None			
09/29/14	None	None			System down - no mag lime
09/30/14	None	None			System down - no mag lime

Total Monthly Discharge (gal)

855,515

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - October 2014**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
10/01/14	None	None	On-Site	14,347	
10/02/14	None	None	On-Site	79,184	
10/03/14	None	None			
10/04/14	None	None			
10/05/14	None	None			
10/06/14	None	None	On-Site	41	
10/07/14	None	None	On-Site	98,947	
10/08/14	None	None	On-Site	86,597	
10/09/14	None	None	On-Site	80,978	
10/10/14	None	None	On-Site	89,110	
10/11/14	None	None			
10/12/14	None	None			
10/13/14	None	None	On-Site	7,035	
10/14/14	None	None	On-Site	35,256	
10/15/14	None	None	On-Site	48,235	
10/16/14	None	None	On-Site	61,064	
10/17/14	None	None	On-Site	86,098	
10/18/14	None	None			
10/19/14	None	None			
10/20/14	None	None	On-Site	4,951	
10/21/14	None	None	On-Site	76,421	
10/22/14	None	None	On-site & Sampled	61,815	
10/23/14	None	None	On-Site	86,510	
10/24/14	None	None	On-Site	57,411	
10/25/14	None	None			
10/26/14	None	None			
10/27/14	None	None	On-Site	12,369	
10/28/14	None	None	On-Site	91,702	
10/29/14	None	None	On-Site	67,870	
10/30/14	None	None	On-Site	69,729	
10/31/14	None	None	On-Site	66,208	

Total Monthly Discharge (gal)

1,215,670

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - November 2014**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
11/01/14	None	None			
11/02/14	None	None			
11/03/14	None	None	On-Site	1,581	
11/04/14	None	None	On-Site	77,130	
11/05/14	None	None	On-Site	63,913	
11/06/14	None	None	On-Site	65,881	
11/07/14	None	None	On-Site	40,727	
11/08/14	None	None			
11/09/14	None	None			
11/10/14	None	None	On-Site	0	
11/11/14	None	None	On-Site	86,869	
11/12/14	None	None	On-site & Sampled	57,677	
11/13/14	None	None	On-Site	71,475	
11/14/14	None	None	On-Site	59,351	System down - low pH & ORP
11/15/14	None	None			
11/16/14	None	None			
11/17/14	None	None	On-Site	1,128	
11/18/14	None	None	On-Site	64,293	
11/19/14	None	None	On-Site	57,964	
11/20/14	None	None	On-Site	51,308	
11/21/14	None	None	On-Site	52,495	
11/22/14	None	None	On-Site	53,766	
11/23/14	None	None	On-Site	48,873	
11/24/14	None	None	On-Site	54,880	
11/25/14	None	None	On-Site	50,794	
11/26/14	None	None	On-Site	58,278	
11/27/14	None	None			
11/28/14	None	None			
11/29/14	None	None			
11/30/14	None	None			

Total Monthly Discharge (gal)

1,018,383

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - December 2014**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
12/01/14	None	None	On-Site	1,472	
12/02/14	None	None	On-Site	64,711	
12/03/14	None	None	On-Site	53,527	
12/04/14	None	None	On-Site	47,607	
12/05/14	None	None	On-Site	47,611	
12/06/14	None	None			
12/07/14	None	None			
12/08/14	None	None	On-Site	4,222	
12/09/14	None	None	On-Site	59,451	
12/10/14	None	None	On-site & Sampled	46,993	
12/11/14	None	None	On-Site	54,426	
12/12/14	None	None	On-Site	50,040	
12/13/14	None	None			
12/14/14	None	None			
12/15/14	None	None	On-Site	1,639	
12/16/14	None	None	On-Site	63,539	
12/17/14	None	None	On-Site	46,518	
12/18/14	None	None	On-Site	48,082	
12/19/14	None	None	On-Site	41,230	
12/20/14	None	None			
12/21/14	None	None			
12/22/14	None	None	On-Site	1,919	
12/23/14	None	None	On-Site	55,262	
12/24/14	None	None	On-Site	50,794	
12/25/14	None	None			
12/26/14	None	None			
12/27/14	None	None			
12/28/14	None	None			
12/29/14	None	None	On-Site	22	
12/30/14	None	None	On-Site	50,132	
12/31/14	None	None	On-Site	65,011	

Total Monthly Discharge (gal)

854,208

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log - January 2015**

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
01/01/15	None	None	On-Site	41,651	
01/02/15	None	None	On-Site	60,812	
01/03/15	None	None			
01/04/15	None	None			
01/05/15	None	None	On-Site	818	
01/06/15	None	None	On-Site	58,976	
01/07/15	None	None	On-Site	47,069	
01/08/15	None	None	On-Site	44,435	
01/09/15	None	None	On-Site	38,231	
01/10/15	None	None			
01/11/15	None	None			
01/12/15	None	None	On-Site	2,144	
01/13/15	None	None	On-Site	64,941	
01/14/15	None	None	On-site & Sampled	44,401	
01/15/15	None	None	On-Site	43,757	
01/16/15	None	None	On-Site	45,805	
01/17/15	None	None			
01/18/15	None	None			
01/19/15	None	None	On-Site	5,208	
01/20/15	None	None	On-Site	49,761	
01/21/15	None	None	On-Site	37,044	
01/22/15	None	None	On-Site	40,960	
01/23/15	None	None	On-Site	38,036	
01/24/15	None	None			
01/25/15	None	None			
01/26/15	None	None	On-Site	3,228	
01/27/15	None	None	On-Site	52,277	
01/28/15	None	None	On-Site	38,817	
01/29/15	None	None	On-Site	36,352	
01/30/15	None	None	On-Site	42,254	
01/31/15	None	None			

Total Monthly Discharge (gal)

836,977

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log - February 2015

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
02/01/15	None	None			
02/02/15	None	None	On-Site	2,298	
02/03/15	None	None	On-Site	44,574	
02/04/15	None	None	On-Site	7,111	System down - mag lime pump down
02/05/15	None	None			System down - mag lime pump down
02/06/15	None	None			System down - mag lime pump down
02/07/15	None	None			
02/08/15	None	None			
02/09/15	None	None	On-Site	3,004	
02/10/15	None	None	On-Site	40,644	
02/11/15	None	None	On-site & Sampled	43,458	
02/12/15	None	None	On-Site	37,767	
02/13/15	None	None	On-Site	38,784	
02/14/15	None	None			
02/15/15	None	None			
02/16/15	None	None			System down - power outage
02/17/15	None	None			System down - power outage
02/18/15	None	None	On-Site	1,906	
02/19/15	None	None	On-Site	41,651	
02/20/15	None	None	On-Site	38,864	
02/21/15	None	None			
02/22/15	None	None			
02/23/15	None	None	On-Site	1,183	
02/24/15	None	None	On-Site	54,952	
02/25/15	None	None	On-Site	36,906	
02/26/15	None	None	On-Site	43,104	
02/27/15	None	None	On-Site	38,867	
02/28/15	None	None			

Total Monthly Discharge (gal) 475,073

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - September 2014**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
9/1/2014	9/1/2014	8.68	0.05	0.00	0.05	
9/2/2014	9/2/2014	9.41	0.09	0.00	0.20	
9/3/2014	9/3/2014	9.39	0.07	0.00	0.05	
9/4/2014	9/4/2014	9.37	0.08	0.00	0.10	
9/5/2014	9/5/2014	9.34	0.10	0.00	0.15	
9/6/2014	9/6/2014					
9/7/2014	9/7/2014					
9/8/2014	9/8/2014	8.61	0.10	0.00	0.10	
9/9/2014	9/9/2014	9.24	0.11	0.00	0.35	
9/10/2014	9/10/2014	9.24	0.07	0.05	0.45	
9/11/2014	9/11/2014	9.23	0.05	0.00	0.20	
9/12/2014	9/12/2014	9.38	0.20	0.00	0.15	
9/13/2014	9/13/2014					
9/14/2014	9/14/2014					
9/15/2014	9/15/2014	8.68	0.15	0.00	0.10	
9/16/2014	9/16/2014	9.13	0.05	0.00	0.05	
9/17/2014	9/17/2014	9.10	0.05	0.00	0.05	
9/18/2014	9/18/2014	9.10	0.09	0.00	0.05	
9/19/2014	9/19/2014	9.08	0.05	0.00	0.05	
9/20/2014	9/20/2014					
9/21/2014	9/21/2014					
9/22/2014	9/22/2014	8.96	0.05	0.00	0.05	
9/23/2014	9/23/2014	9.49	0.09	0.00	0.05	
9/24/2014	9/24/2014	9.71	0.06	0.00	0.05	
9/25/2014	9/25/2014					System down - no mag lime
9/26/2014	9/26/2014					System down - no mag lime
9/27/2014	9/27/2014					
9/28/2014	9/28/2014					
9/29/2014	9/29/2014					System down - no mag lime
9/30/2014	9/30/2014					System down - no mag lime

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - October 2014**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
10/1/2014	10/1/2014	8.33	0.05	0.00	0.05	
10/2/2014	10/2/2014	9.49	0.05	0.00	0.05	
10/3/2014	10/3/2014					
10/4/2014	10/4/2014					
10/5/2014	10/5/2014					
10/6/2014	10/6/2014	8.58	0.05	0.00	0.10	
10/7/2014	10/7/2014	9.29	0.01	0.00	0.15	
10/8/2014	10/8/2014	9.55	0.05	0.00	0.10	
10/9/2014	10/9/2014	9.35	0.06	0.00	0.10	
10/10/2014	10/10/2014	9.37	0.05	0.00	0.05	
10/11/2014	10/11/2014					
10/12/2014	10/12/2014					
10/13/2014	10/13/2014	8.98	0.05	0.00	0.05	
10/14/2014	10/14/2014	9.32	0.05	0.00	0.05	
10/15/2014	10/15/2014	9.23	0.30	0.00	0.05	
10/16/2014	10/16/2014	8.77	0.21	0.00	0.05	
10/17/2014	10/17/2014	9.45	0.05	0.00	0.05	
10/18/2014	10/18/2014					
10/19/2014	10/19/2014					
10/20/2014	10/20/2014	8.58	0.04	0.00	0.05	
10/21/2014	10/21/2014	9.40	0.03	0.00	0.05	
10/22/2014	10/22/2014	10.09	0.02	0.00	0.05	
10/23/2014	10/23/2014	9.24	0.02	0.05	0.15	
10/24/2014	10/24/2014	9.15	0.11	0.10	0.30	
10/25/2014	10/25/2014					
10/26/2014	10/26/2014					
10/27/2014	10/27/2014	8.74	0.03	0.00	0.15	
10/28/2014	10/28/2014	9.58	0.03	0.00	0.10	
10/29/2014	10/29/2014	9.75	0.03	0.00	0.15	
10/30/2014	10/30/2014	9.52	0.02	0.00	0.15	
10/31/2014	10/31/2014	9.51	0.05	0.00	0.10	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - November 2014**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
11/1/2014	11/1/2014					
11/2/2014	11/2/2014					
11/3/2014	11/3/2014	9.00	0.04	0.00	0.05	
11/4/2014	11/4/2014	9.48	0.04	0.00	0.05	
11/5/2014	11/5/2014	9.49	0.02	0.00	0.15	
11/6/2014	11/6/2014	9.42	0.03	0.00	0.15	
11/7/2014	11/7/2014	8.09	1.14	0.20	0.85	System down - low pH & ORP
11/8/2014	11/8/2014					
11/9/2014	11/9/2014					
11/10/2014	11/10/2014	8.14	0.44	0.05	0.25	
11/11/2014	11/11/2014	9.35	0.06	0.05	0.15	
11/12/2014	11/12/2014	9.36	0.01	0.00	0.10	
11/13/2014	11/13/2014	9.33	0.04	0.00	0.05	
11/14/2014	11/14/2014	9.37	0.04	0.00	0.10	
11/15/2014	11/15/2014					
11/16/2014	11/16/2014					
11/17/2014	11/17/2014	8.64	0.04	0.00	0.10	
11/18/2014	11/18/2014	9.20	0.01	0.20	0.40	
11/19/2014	11/19/2014	9.22	0.05	0.10	0.22	
11/20/2014	11/20/2014	9.23	0.02	0.10	0.20	
11/21/2014	11/21/2014	9.27	0.03	0.10	0.25	
11/22/2014	11/22/2014	9.15	0.06	0.10	0.25	
11/23/2014	11/23/2014	9.11	0.07	0.05	0.20	
11/24/2014	11/24/2014	9.14	0.05	0.05	0.20	
11/25/2014	11/25/2014	9.10	0.04	0.05	0.15	
11/26/2014	11/26/2014	9.04	0.10	0.05	0.15	
11/27/2014	11/27/2014					
11/28/2014	11/28/2014					
11/29/2014	11/29/2014					
11/30/2014	11/30/2014					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - December 2014**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
12/1/2014	12/1/2014	8.37	0.11	0.05	0.15	
12/2/2014	12/2/2014	9.38	0.03	0.00	0.05	
12/3/2014	12/3/2014	9.39	0.04	0.00	0.05	
12/4/2014	12/4/2014	9.38	0.05	0.00	0.10	
12/5/2014	12/5/2014	9.60	0.01	0.00	0.05	
12/6/2014	12/6/2014					
12/7/2014	12/7/2014					
12/8/2014	12/8/2014	9.08	0.04	0.00	0.05	
12/9/2014	12/9/2014	9.62	0.03	0.00	0.05	
12/10/2014	12/10/2014	9.60	0.03	0.00	0.10	
12/11/2014	12/11/2014	9.62	0.02	0.00	0.05	
12/12/2014	12/12/2014	9.58	0.03	0.00	0.05	
12/13/2014	12/13/2014					
12/14/2014	12/14/2014					
12/15/2014	12/15/2014	8.87	0.17	0.00	0.20	
12/16/2014	12/16/2014	9.60	0.05	0.00	0.05	
12/17/2014	12/17/2014	9.53	0.05	0.00	0.05	
12/18/2014	12/18/2014	9.45	0.05	0.00	0.05	
12/19/2014	12/19/2014	9.45	0.04	0.00	0.05	
12/20/2014	12/20/2014					
12/21/2014	12/21/2014					
12/22/2014	12/22/2014	8.71	0.03	0.00	0.15	
12/23/2014	12/23/2014	9.52	0.05	0.00	0.05	
12/24/2014	12/24/2014	9.60	0.05	0.00	0.05	
12/25/2014	12/25/2014					
12/26/2014	12/26/2014					
12/27/2014	12/27/2014					
12/28/2014	12/28/2014					
12/29/2014	12/29/2014	8.63	0.09	0.00	0.20	
12/30/2014	12/30/2014	9.44	0.07	0.00	0.05	
12/31/2014	12/31/2014	9.62	0.07	0.00	0.05	

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - January 2015**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
1/1/2015	1/1/2015	9.56	0.07	0.00	0.05	
1/2/2015	1/2/2015	9.38	0.09	0.00	0.20	
1/3/2015	1/3/2015					
1/4/2015	1/4/2015					
1/5/2015	1/5/2015	8.52	0.05	0.00	0.30	
1/6/2015	1/6/2015	9.20	0.15	0.00	0.25	
1/7/2015	1/7/2015	9.21	0.10	0.00	0.10	
1/8/2015	1/8/2015	9.11	0.09	0.00	0.05	
1/9/2015	1/9/2015	9.10	0.07	0.00	0.15	
1/10/2015	1/10/2015					
1/11/2015	1/11/2015					
1/12/2015	1/12/2015	8.58	0.06	0.00	0.15	
1/13/2015	1/13/2015	9.51	0.04	0.00	0.05	
1/14/2015	1/14/2015	9.48	0.04	0.00	0.05	
1/15/2015	1/15/2015	9.47	0.04	0.00	0.10	
1/16/2015	1/16/2015	9.52	0.06	0.00	0.05	
1/17/2015	1/17/2015					
1/18/2015	1/18/2015					
1/19/2015	1/19/2015	8.84	0.04	0.00	0.30	
1/20/2015	1/20/2015	9.36	0.04	0.00	0.20	
1/21/2015	1/21/2015	9.24	0.04	0.00	0.05	
1/22/2015	1/22/2015	9.31	0.04	0.00	0.15	
1/23/2015	1/23/2015	9.50	0.04	0.00	0.10	
1/24/2015	1/24/2015					
1/25/2015	1/25/2015					
1/26/2015	1/26/2015	8.59	0.04	0.00	0.10	
1/27/2015	1/27/2015	9.20	0.08	0.00	0.10	
1/28/2015	1/28/2015	9.17	0.06	0.00	0.20	
1/29/2015	1/29/2015	9.15	0.08	0.00	0.10	
1/30/2015	1/30/2015	9.14	0.05	0.00	0.05	
1/31/2015	1/31/2015					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - February 2015**

	Permit Limits	5-11.5	3.98 mg/L	N/A	2.77 mg/L	
DATE	SAMPLE DATE	pH	(mg/L) NICKEL	(mg/L) HEX Cr	(mg/L) TOTAL Cr	NOTES
2/1/2015	2/1/2015					
2/2/2015	2/2/2015	8.24	0.05	0.00	0.05	
2/3/2015	2/3/2015	9.12	0.02	0.00	0.05	
2/4/2015	2/4/2015	8.31	0.10	0.00	0.30	Systgem down - mag lime pump down
2/5/2015	2/5/2015					Systgem down - mag lime pump down
2/6/2015	2/6/2015					Systgem down - mag lime pump down
2/7/2015	2/7/2015					
2/8/2015	2/8/2015					
2/9/2015	2/9/2015	8.04	0.04	0.00	0.15	
2/10/2015	2/10/2015	9.35	0.04	0.00	0.10	
2/11/2015	2/11/2015	9.04	0.04	0.00	0.05	
2/12/2015	2/12/2015	9.04	0.06	0.00	0.30	
2/13/2015	2/13/2015	9.09	0.04	0.00	0.05	
2/14/2015	2/14/2015					
2/15/2015	2/15/2015					
2/16/2015	2/16/2015					System down - power outage
2/17/2015	2/17/2015					System down - power outage
2/18/2015	2/18/2015	7.02	0.16	0.10	0.30	
2/19/2015	2/19/2015	9.87	0.03	0.00	0.05	
2/20/2015	2/20/2015	9.49	0.02	0.00	0.05	
2/21/2015	2/21/2015					
2/22/2015	2/22/2015					
2/23/2015	2/23/2015	8.94	0.02	0.00	0.05	
2/24/2015	2/24/2015	9.46	0.03	0.00	0.05	
2/25/2015	2/25/2015	9.40	0.03	0.00	0.05	
2/26/2015	2/26/2015	9.43	0.03	0.00	0.05	
2/27/2015	2/27/2015	9.39	0.05	0.00	0.15	
2/28/2015	2/28/2015					

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-42057-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

9/26/2014 5:41:36 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Job ID: 240-42057-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-42057-1

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

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

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

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

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

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

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

RECEIPT

The samples were received on 09/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 09/19/2014 and analyzed on 09/24/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 147739.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 09/19/2014 and analyzed on 09/22/2014.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Job ID: 240-42057-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Requested reporting limits (RL) that fall below the laboratory's verified standard quantitation limit have less certainty (i.e., are estimated) and must be used at the client's discretion. The continuing calibration blanks and method blanks may not support the lower RL.

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

MERCURY

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 09/19/2014 and analyzed on 09/22/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 09/22/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 09/23/2014.

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

HEXAVALENT CHROMIUM

Sample WT-012607-091714-EE-001 (240-42057-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 09/18/2014.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Qualifiers

GC Semi VOA

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

Metals

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

General Chemistry

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

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-42057-1	WT-012607-091714-EE-001	Water	09/17/14 14:30	09/18/14 09:35

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Client Sample ID: WT-012607-091714-EE-001

Lab Sample ID: 240-42057-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.20		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.17		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	19		4.0	mg/L	1		SM 2540D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

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

Client Sample ID: WT-012607-091714-EE-001

Date Collected: 09/17/14 14:30

Date Received: 09/18/14 09:35

Lab Sample ID: 240-42057-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1221	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1232	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1242	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1248	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1254	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Aroclor-1260	0.095	U	0.095	ug/L		09/19/14 09:28	09/24/14 16:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	58		10 - 114			09/19/14 09:28	09/24/14 16:16	1
Tetrachloro-m-xylene	61		15 - 131			09/19/14 09:28	09/24/14 16:16	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-091714-EE-001

Date Collected: 09/17/14 14:30

Date Received: 09/18/14 09:35

Lab Sample ID: 240-42057-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.20		0.050	mg/L		09/19/14 10:30	09/22/14 22:22	1
Nickel	0.17		0.010	mg/L		09/19/14 10:30	09/22/14 22:22	1
Lead	0.050	U	0.050	mg/L		09/19/14 10:30	09/22/14 22:22	1
Zinc	0.020	U	0.020	mg/L		09/19/14 10:30	09/22/14 22:22	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-091714-EE-001

Date Collected: 09/17/14 14:30

Date Received: 09/18/14 09:35

Lab Sample ID: 240-42057-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		09/19/14 12:00	09/22/14 17:30	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

General Chemistry

Client Sample ID: WT-012607-091714-EE-001

Date Collected: 09/17/14 14:30

Date Received: 09/18/14 09:35

Lab Sample ID: 240-42057-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		09/22/14 10:16	09/22/14 10:23	1
Total Suspended Solids	19		4.0	mg/L			09/23/14 09:02	1
Cr (VI)	0.0050	U	0.0050	mg/L			09/18/14 11:12	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

GC Semi VOA

Prep Batch: 147739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	3520C	
LCS 240-147739/20-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-147739/19-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 148160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-147739/20-A	Lab Control Sample	Total/NA	Water	608	147739

Analysis Batch: 148376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	608	147739
MB 240-147739/19-A	Method Blank	Total/NA	Water	608	147739

Metals

Prep Batch: 147761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total Recoverable	Water	200.7	
LCS 240-147761/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-147761/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 147764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	245.1	
LCS 240-147764/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-147764/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 148140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	245.1	147764
LCS 240-147764/2-A	Lab Control Sample	Total/NA	Water	245.1	147764
MB 240-147764/1-A	Method Blank	Total/NA	Water	245.1	147764

Analysis Batch: 148152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total Recoverable	Water	200.7 Rev 4.4	147761
LCS 240-147761/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	147761
MB 240-147761/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	147761

General Chemistry

Analysis Batch: 147578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-147578/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-147578/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Prep Batch: 147951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	1664A	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

General Chemistry (Continued)

Prep Batch: 147951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-147951/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-147951/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 147952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	1664A	147951
LCS 240-147951/2-A	Lab Control Sample	Total/NA	Water	1664A	147951
MB 240-147951/1-A	Method Blank	Total/NA	Water	1664A	147951

Analysis Batch: 148189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-42057-1	WT-012607-091714-EE-001	Total/NA	Water	SM 2540D	
LCS 240-148189/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-148189/1	Method Blank	Total/NA	Water	SM 2540D	

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

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

Lab Sample ID: MB 240-147739/19-A

Matrix: Water

Analysis Batch: 148376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147739

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1221	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1232	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1242	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1248	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1254	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1
Aroclor-1260	0.10	U	0.10	ug/L		09/19/14 09:28	09/24/14 16:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		10 - 114	09/19/14 09:28	09/24/14 16:44	1
Tetrachloro-m-xylene	71		15 - 131	09/19/14 09:28	09/24/14 16:44	1

Lab Sample ID: LCS 240-147739/20-A

Matrix: Water

Analysis Batch: 148160

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.44		ug/L		98	50 - 114
Aroclor-1260	2.50	2.34		ug/L		93	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	85		10 - 114
Tetrachloro-m-xylene	79		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-147761/1-A

Matrix: Water

Analysis Batch: 148152

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 147761

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		09/19/14 10:30	09/22/14 21:27	1
Nickel	0.010	U	0.010	mg/L		09/19/14 10:30	09/22/14 21:27	1
Lead	0.050	U	0.050	mg/L		09/19/14 10:30	09/22/14 21:27	1
Zinc	0.020	U	0.020	mg/L		09/19/14 10:30	09/22/14 21:27	1

Lab Sample ID: LCS 240-147761/2-A

Matrix: Water

Analysis Batch: 148152

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 147761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.195		mg/L		97	85 - 115
Nickel	0.500	0.473		mg/L		95	85 - 115
Lead	0.500	0.462		mg/L		92	85 - 115
Zinc	0.500	0.480		mg/L		96	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-147764/1-A
Matrix: Water
Analysis Batch: 148140

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147764

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		09/19/14 12:00	09/22/14 16:53	1

Lab Sample ID: LCS 240-147764/2-A
Matrix: Water
Analysis Batch: 148140

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00488		mg/L		98	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-147951/1-A
Matrix: Water
Analysis Batch: 147952

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147951

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		09/22/14 08:27	09/22/14 08:44	1

Lab Sample ID: LCS 240-147951/2-A
Matrix: Water
Analysis Batch: 147952

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	38.0		mg/L		95	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-148189/1
Matrix: Water
Analysis Batch: 148189

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			09/23/14 09:02	1

Lab Sample ID: LCS 240-148189/2
Matrix: Water
Analysis Batch: 148189

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	99.3	94.0		mg/L		95	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-147578/3

Matrix: Water

Analysis Batch: 147578

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			09/18/14 10:41	1

Lab Sample ID: LCS 240-147578/4

Matrix: Water

Analysis Batch: 147578

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.251		mg/L		100	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-42057-1	WT-012607-091714-EE-001	58	61
LCS 240-147739/20-A	Lab Control Sample	85	79
MB 240-147739/19-A	Method Blank	74	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

Client Sample ID: WT-012607-091714-EE-001

Lab Sample ID: 240-42057-1

Date Collected: 09/17/14 14:30

Matrix: Water

Date Received: 09/18/14 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			147739	09/19/14 09:28	CSC	TAL CAN
Total/NA	Analysis	608		1	148376	09/24/14 16:16	LSH	TAL CAN
Total Recoverable	Prep	200.7			147761	09/19/14 10:30	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	148152	09/22/14 22:22	ADS	TAL CAN
Total/NA	Prep	245.1			147764	09/19/14 12:00	WAL	TAL CAN
Total/NA	Analysis	245.1		1	148140	09/22/14 17:30	AMM2	TAL CAN
Total/NA	Prep	1664A			147951	09/22/14 10:16	LKG	TAL CAN
Total/NA	Analysis	1664A		1	147952	09/22/14 10:23	LKG	TAL CAN
Total/NA	Analysis	SM 2540D		1	148189	09/23/14 09:02	AS1	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	147578	09/18/14 11:12	BLW	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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-42057-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	01-31-15
Kentucky (UST)	State Program	4	58	06-30-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-15

* Certification renewal pending - certification considered valid.

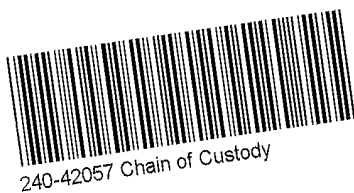
TestAmerica Canton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS





CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: PL-12626

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 012607-T01Y14-003		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-T01Y14-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cobler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rainer Fleisher, CRA							
Sampler(s): Erik Engren, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Matrix Code		(see back of COC)		Unpreserved		Date Shipped:	
DATE (mm/dd/yyyy)		DATE (mm/dd/yyyy)		TIME (hr:min)		COMMENTS/ SPECIAL INSTRUCTIONS:	
WT-012607-091714-EE-001		9/17/14		1430			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
TAT Required in business days (use separate COCs for different TATs):		Total Number of Containers: 6		Notes/ Special Requirements:			
☐ 1 Day ☐ 2 Days ☐ 3 Days ☒ 2 Week ☐ Other: STA		All Samples in Cooler must be on COC					
RELINQUISHED BY: Erik Engren		DATE: 9/17/14		TIME: 0530		RECEIVED BY: TA	
COMPANY: CRA		DATE: 9/18/14		TIME: 0935			
1.							
2.							
3.							

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 42057

Client <u>CRA</u>	Site Name _____	Cooler unpacked by: <u>[Signature]</u>
Cooler Received on <u>9-18-14</u>	Opened on <u>9-18-14</u>	
FedEx: 1 st Grd <u>Exp</u>	UPS FAS Stetson	Client Drop Off TestAmerica Courier Other _____
TestAmerica Cooler # _____	Foam Box <u>Client Cooler</u>	Box Other _____
Packing material used: <u>Bubble Wrap</u> Foam Plastic Bag None Other _____		
COOLANT: <u>Water</u> Blue Ice Dry Ice Water None		

- Cooler temperature upon receipt

IR GUN# A (CF +2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	☐ See Multiple Cooler Form
IR GUN# 4 (CF -2 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5 (CF 0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF 0 °C)	Observed Cooler Temp. <u>2.0</u> °C	Corrected Cooler Temp. <u>2.0</u> °C	
- Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were custody seals on the bottle(s)? Yes No
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC412469
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials? Yes No NA
- Was a trip blank present in the cooler(s)? Yes No

Contacted PM DDH Date 9/18/14 by Jm via Verbal Voice Mail Other _____
Concerning #114

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: TB

ID Discrepancy: COC = WT-012607-091714-EE-001
Bottles = WT-012607-091714-EE-003
Will log per COC

15. SAMPLE CONDITION

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

16. SAMPLE PRESERVATION

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservative</u>	<u>Lot #</u>
			<u>pH</u>	<u>Added (mls)</u>	
WT-012607-091714-EE-001	240-42057-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-091714-EE-001	240-42057-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-012607-091714-EE-001	240-42057-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-43409-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

10/28/2014 2:07:24 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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results through

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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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Job ID: 240-43409-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-43409-1

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 10/23/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 10/25/2014 and analyzed on 10/28/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WT-012607-102214-EE-001 (240-43409-1). Reagents: 1714041, 1526414, 1647110.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 153289.

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

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Job ID: 240-43409-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 10/24/2014 and analyzed on 10/27/2014.

Some requested reporting limits (RL) on the following samples fall below the laboratory's verified standard quantitation limit:
.WT-012607-102214-EE-001 (240-43409-1). The continuing calibration blanks and method blanks may not support the lower RL.

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

MERCURY

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 10/24/2014 and analyzed on 10/25/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 10/24/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 10/24/2014.

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

HEXAVALENT CHROMIUM

Sample WT-012607-102214-EE-001 (240-43409-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 10/23/2014.

Cr (VI) failed the recovery criteria low for the MS of sample WT-012607-102214-EE-001MS (240-43409-1) in batch 240-152968.

Cr (VI) failed the recovery criteria low for the MSD of sample WT-012607-102214-EE-001MSD (240-43409-1) in batch 240-152968.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Qualifiers

GC Semi VOA

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

Metals

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

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-43409-1	WT-012607-102214-EE-001	Water	10/22/14 14:00	10/23/14 09:30

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Client Sample ID: WT-012607-102214-EE-001

Lab Sample ID: 240-43409-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.26		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.037		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Cr (VI)	0.093		0.0050	mg/L	1		SM 3500 CR D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

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

Client Sample ID: WT-012607-102214-EE-001

Date Collected: 10/22/14 14:00

Date Received: 10/23/14 09:30

Lab Sample ID: 240-43409-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1221	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1232	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1242	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1248	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1254	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Aroclor-1260	0.095	U	0.095	ug/L		10/25/14 09:46	10/28/14 08:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	28		10 - 114			10/25/14 09:46	10/28/14 08:29	1
Tetrachloro-m-xylene	55		15 - 131			10/25/14 09:46	10/28/14 08:29	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-102214-EE-001

Date Collected: 10/22/14 14:00

Date Received: 10/23/14 09:30

Lab Sample ID: 240-43409-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.26		0.050	mg/L		10/24/14 10:07	10/27/14 15:36	1
Nickel	0.037		0.010	mg/L		10/24/14 10:07	10/27/14 15:36	1
Lead	0.050	U	0.050	mg/L		10/24/14 10:07	10/27/14 15:36	1
Zinc	0.020	U	0.020	mg/L		10/24/14 10:07	10/27/14 15:36	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-102214-EE-001

Date Collected: 10/22/14 14:00

Date Received: 10/23/14 09:30

Lab Sample ID: 240-43409-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/24/14 15:50	10/25/14 13:10	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

General Chemistry

Client Sample ID: WT-012607-102214-EE-001

Date Collected: 10/22/14 14:00

Date Received: 10/23/14 09:30

Lab Sample ID: 240-43409-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		10/24/14 09:11	10/24/14 09:11	1
Total Suspended Solids	4.0	U	4.0	mg/L			10/24/14 08:58	1
Cr (VI)	0.093		0.0050	mg/L			10/23/14 10:44	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

GC Semi VOA

Prep Batch: 153289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	3520C	
LCS 240-153289/5-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-153289/4-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 153520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-153289/5-A	Lab Control Sample	Total/NA	Water	608	153289
MB 240-153289/4-A	Method Blank	Total/NA	Water	608	153289

Analysis Batch: 153563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	608	153289

Metals

Prep Batch: 153140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total Recoverable	Water	200.7	
LCS 240-153140/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-153140/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 153143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	245.1	
LCS 240-153143/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-153143/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 153429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	245.1	153143
LCS 240-153143/2-A	Lab Control Sample	Total/NA	Water	245.1	153143
MB 240-153143/1-A	Method Blank	Total/NA	Water	245.1	153143

Analysis Batch: 153582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total Recoverable	Water	200.7 Rev 4.4	153140
LCS 240-153140/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	153140
MB 240-153140/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	153140

General Chemistry

Analysis Batch: 152968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	SM 3500 CR D	
240-43409-1 MS	WT-012607-102214-EE-001	Total/NA	Water	SM 3500 CR D	
240-43409-1 MSD	WT-012607-102214-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-152968/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-152968/3	Method Blank	Total/NA	Water	SM 3500 CR D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

General Chemistry (Continued)

Analysis Batch: 153105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	SM 2540D	
LCS 240-153105/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-153105/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 153111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	1664A	
LCS 240-153111/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-153111/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 153157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-43409-1	WT-012607-102214-EE-001	Total/NA	Water	1664A	153111
LCS 240-153111/2-A	Lab Control Sample	Total/NA	Water	1664A	153111
MB 240-153111/1-A	Method Blank	Total/NA	Water	1664A	153111

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

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

Lab Sample ID: MB 240-153289/4-A

Matrix: Water

Analysis Batch: 153520

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 153289

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1221	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1232	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1242	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1248	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1254	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1
Aroclor-1260	0.10	U	0.10	ug/L		10/25/14 09:46	10/27/14 22:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	77		10 - 114	10/25/14 09:46	10/27/14 22:54	1
Tetrachloro-m-xylene	82		15 - 131	10/25/14 09:46	10/27/14 22:54	1

Lab Sample ID: LCS 240-153289/5-A

Matrix: Water

Analysis Batch: 153520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 153289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.36		ug/L		95	50 - 114
Aroclor-1260	2.50	2.25		ug/L		90	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	80		10 - 114
Tetrachloro-m-xylene	78		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-153140/1-A

Matrix: Water

Analysis Batch: 153582

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 153140

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		10/24/14 10:07	10/27/14 14:41	1
Nickel	0.010	U	0.010	mg/L		10/24/14 10:07	10/27/14 14:41	1
Lead	0.050	U	0.050	mg/L		10/24/14 10:07	10/27/14 14:41	1
Zinc	0.020	U	0.020	mg/L		10/24/14 10:07	10/27/14 14:41	1

Lab Sample ID: LCS 240-153140/2-A

Matrix: Water

Analysis Batch: 153582

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 153140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.188		mg/L		94	85 - 115
Nickel	0.500	0.479		mg/L		96	85 - 115
Lead	0.500	0.472		mg/L		94	85 - 115
Zinc	0.500	0.497		mg/L		99	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-153143/1-A
Matrix: Water
Analysis Batch: 153429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153143

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		10/24/14 15:50	10/25/14 12:42	1

Lab Sample ID: LCS 240-153143/2-A
Matrix: Water
Analysis Batch: 153429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00495		mg/L		99	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-153111/1-A
Matrix: Water
Analysis Batch: 153157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153111

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		10/24/14 09:11	10/24/14 09:11	1

Lab Sample ID: LCS 240-153111/2-A
Matrix: Water
Analysis Batch: 153157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	37.5		mg/L		94	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-153105/1
Matrix: Water
Analysis Batch: 153105

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			10/24/14 08:58	1

Lab Sample ID: LCS 240-153105/2
Matrix: Water
Analysis Batch: 153105

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	77.4	70.0		mg/L		90	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-152968/3

Matrix: Water

Analysis Batch: 152968

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			10/23/14 10:42	1

Lab Sample ID: LCS 240-152968/4

Matrix: Water

Analysis Batch: 152968

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.241		mg/L		97	80 - 118

Lab Sample ID: 240-43409-1 MS

Matrix: Water

Analysis Batch: 152968

Client Sample ID: WT-012607-102214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.093		0.250	0.182	F1	mg/L		35	41 - 136

Lab Sample ID: 240-43409-1 MSD

Matrix: Water

Analysis Batch: 152968

Client Sample ID: WT-012607-102214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.093		0.250	0.192	F1	mg/L		40	41 - 136	6	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-43409-1	WT-012607-102214-EE-001	28	55
LCS 240-153289/5-A	Lab Control Sample	80	78
MB 240-153289/4-A	Method Blank	77	82

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

Client Sample ID: WT-012607-102214-EE-001

Lab Sample ID: 240-43409-1

Date Collected: 10/22/14 14:00

Matrix: Water

Date Received: 10/23/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			153289	10/25/14 09:46	SDE	TAL CAN
Total/NA	Analysis	608		1	153563	10/28/14 08:29	LSH	TAL CAN
Total Recoverable	Prep	200.7			153140	10/24/14 10:07	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	153582	10/27/14 15:36	ADS	TAL CAN
Total/NA	Prep	245.1			153143	10/24/14 15:50	WAL	TAL CAN
Total/NA	Analysis	245.1		1	153429	10/25/14 13:10	AMM2	TAL CAN
Total/NA	Analysis	1664A		1	153157	10/24/14 09:11	NJE	TAL CAN
Total/NA	Prep	1664A			153111	10/24/14 09:11	NJE	TAL CAN
Total/NA	Analysis	SM 2540D		1	153105	10/24/14 08:58	AS1	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	152968	10/23/14 10:44	BLW	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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-43409-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	01-31-15
Kentucky (UST)	State Program	4	58	06-30-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-43409 Chain of Custody



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

3,8

COC NO.: PL-12695

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 012607-ToiY14-003		Laboratory Name: Test America		Lab Location: N Canton, Ct		SSOW ID: 12607-ToiY14-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rawle Fleisher, CRA						Airbill No:	
Sampler(s): Erik Engnell, CRA		SAMPLE TYPE		Total Containers/Sample		Date Shipped:	
Matrix Code		Grab (g) or Comp (C)		Unpreserved		COMMENTS/ SPECIAL INSTRUCTIONS:	
DATE (mm/dd/yyyy)		DATE (mm/dd/yyyy)		TIME (hh:mm)			
WT - 012607 - 102214 - EE-001		10/22/14		1400			
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	
5		5		5		5	
6		6		6		6	
7		7		7		7	
8		8		8		8	
9		9		9		9	
10		10		10		10	
11		11		11		11	
12		12		12		12	
13		13		13		13	
14		14		14		14	
15		15		15		15	

TAT Required in business days (use separate COCs for different TATs):		Total Number of Containers: 6		Notes/ Special Requirements:	
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other: STD		All Samples in Cooler must be on COC			
RELINQUISHED BY: Erik Engnell		RECEIVED BY: [Signature]		DATE: 10/22/14	
COMPANY: CRA		COMPANY: [Signature]		DATE: 10/23/14	
1		1		1	
2		2		2	
3		3		3	

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

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 43409

Canton Facility

Client CRA Site Name _____ Cooler unpacked by: Jakob Turner
 Cooler Received on 10-23-10 Opened on 10-23-10
 FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____
 TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN# 4 (CF -2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN# 5 (CF 0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN# 8 (CF 0 °C) Observed Cooler Temp. 3.8 °C Corrected Cooler Temp. 3.8 °C

☐ See Multiple Cooler Form

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

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

-Were custody seals on the bottle(s)? Yes No

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

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

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

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

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

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

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

10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC412469

11. Were VOAs on the COC? Yes No

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

13. Was a trip blank present in the cooler(s)? Yes No

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

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JM

15. SAMPLE CONDITION

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

16. SAMPLE PRESERVATION

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

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> pH	<u>Preservative</u> Added (mls)	<u>Lot #</u>
WT-012607-102214-EE-001	240-43409-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-102214-EE-001	240-43409-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-012607-102214-EE-001	240-43409-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-44333-1

Client Project/Site: 12607-T01, RACER Eckles Rd

Revision: 1

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

4/1/2015 4:10:00 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

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results through

TotalAccess

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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: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Job ID: 240-44333-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01, RACER Eckles Rd

Report Number: 240-44333-1

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.

A revised report was provided on April 1, 2015. The dioxin screen analysis was included in the revision.

RECEIPT

The samples were received on 11/13/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 3.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA Method 624. The samples were analyzed on 11/15/2014.

The continuing calibration verification (CCV) associated with batch 156718 recovered above the upper control limit for carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The preservative used in the sample containers provided is not compatible with the analytes requested. The following sample(s) was received preserved with hydrochloric acid: WT-012607-111214-EE-001 (240-44333-1). The requested target analyte list contains 2-chloroethylvinyl ether, acrolein, and/or acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Job ID: 240-44333-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA Method 625. The samples were prepared on 11/18/2014 and analyzed on 11/25/2014.

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

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

The continuing calibration verification (CCV) associated with batch 158186 recovered above the upper control limit for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and 2,2'-oxybis(1-chloropropane). The samples associated with this CCV were non-detect for the affected analytes; therefore, the data have been reported.

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

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 11/14/2014 and analyzed on 11/15/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Aroclor-1016 and Aroclor-1260 failed the recovery criteria high for LCS 240-156622/13-A. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

CHLORINATED PESTICIDES

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for chlorinated pesticides in accordance with EPA Method 608. The samples were prepared on 11/15/2014 and analyzed on 11/24/2014.

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

The continuing calibration verification (CCV) associated with batch 158082 recovered above the upper control limit for Multiple Analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 11/14/2014 and analyzed on 11/17/2014.

Some requested reporting limits (RL) on the following samples fall below the laboratory's verified standard quantitation limit:
.WT-012607-111214-EE-001 (240-44333-1). The continuing calibration blanks and method blanks may not support the lower RL.

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

MERCURY

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 11/14/2014 and analyzed on 11/17/2014.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Job ID: 240-44333-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 11/20/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/19/2014.

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

HEXAVALENT CHROMIUM

Sample WT-012607-111214-EE-001 (240-44333-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 11/13/2014.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
U	Indicates the analyte was analyzed for but not detected.

Metals

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

General Chemistry

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

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-44333-1	WT-012607-111214-EE-001	Water	11/12/14 15:00	11/13/14 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Client Sample ID: WT-012607-111214-EE-001

Lab Sample ID: 240-44333-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.1		1.0	ug/L	1		624	Total/NA
1,1-Dichloroethane	1.2		1.0	ug/L	1		624	Total/NA
2,3,7,8-TCDD	NEG			ng/uL	1		625	Total/NA
Chromium	0.15		0.050	mg/L	1		200.7 Rev 4.4	Total Recoverable
Nickel	0.10		0.010	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Suspended Solids	20		4.0	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
625	Dioxin Screen (GC/MS SIM)	40CFR136A	TAL CAN
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
608	Organochlorine Pesticides in Water	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1		1.0	ug/L			11/15/14 01:58	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Xylenes, Total	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,1-Dichloroethane	1.2		1.0	ug/L			11/15/14 01:58	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Acrolein	10	U	10	ug/L			11/15/14 01:58	1
Acrylonitrile	10	U	10	ug/L			11/15/14 01:58	1
Benzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Bromoform	1.0	U	1.0	ug/L			11/15/14 01:58	1
Bromomethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Carbon tetrachloride	1.0	U	1.0	ug/L			11/15/14 01:58	1
Chlorobenzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Chlorodibromomethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Chloroethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Chloroform	1.0	U	1.0	ug/L			11/15/14 01:58	1
Chloromethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			11/15/14 01:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Dichlorobromomethane	1.0	U	1.0	ug/L			11/15/14 01:58	1
Ethylbenzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Tetrachloroethene	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Toluene	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			11/15/14 01:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Trichloroethene	1.0	U	1.0	ug/L			11/15/14 01:58	1
Vinyl chloride	1.0	U	1.0	ug/L			11/15/14 01:58	1
Methylene Chloride	1.0	U	1.0	ug/L			11/15/14 01:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			11/15/14 01:58	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			11/15/14 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		80 - 120		11/15/14 01:58	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 125		11/15/14 01:58	1
Toluene-d8 (Surr)	104		80 - 120		11/15/14 01:58	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Dioxin Screen (GC/MS SIM)

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		11/18/14 07:47	11/26/14 20:37	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,4,6-Trichlorophenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,4-Dichlorophenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,4-Dimethylphenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,4-Dinitrophenol	48	U	48	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,4-Dinitrotoluene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2,6-Dinitrotoluene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2-Chloronaphthalene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2-Chlorophenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
2-Nitrophenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
3,3'-Dichlorobenzidine	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
4,6-Dinitro-2-methylphenol	48	U	48	ug/L		11/18/14 07:46	11/25/14 00:02	1
4-Bromophenyl phenyl ether	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
4-Chlorophenyl phenyl ether	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
4-Nitrophenol	48	U	48	ug/L		11/18/14 07:46	11/25/14 00:02	1
Acenaphthene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Acenaphthylene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Anthracene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzidine	4.8	U	4.8	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzo[a]anthracene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzo[a]pyrene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzo[b]fluoranthene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzo[g,h,i]perylene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Benzo[k]fluoranthene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Bis(2-chloroethoxy)methane	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Bis(2-chloroethyl)ether	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Bis(2-ethylhexyl) phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
bis (2-chloroisopropyl) ether	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Butyl benzyl phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Chrysene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Dibenz(a,h)anthracene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Diethyl phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Dimethyl phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Di-n-butyl phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Di-n-octyl phthalate	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Fluoranthene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Fluorene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Hexachlorobenzene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Hexachlorobutadiene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Hexachlorocyclopentadiene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Hexachloroethane	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Indeno[1,2,3-cd]pyrene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Isophorone	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Naphthalene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Nitrobenzene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
N-Nitrosodimethylamine	0.95	U	0.95	ug/L		11/18/14 07:46	11/25/14 00:02	1
N-Nitrosodi-n-propylamine	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
N-Nitrosodiphenylamine	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
4-Chloro-3-methylphenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: WT-012607-111214-EE-001

Lab Sample ID: 240-44333-1

Date Collected: 11/12/14 15:00

Matrix: Water

Date Received: 11/13/14 09:15

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Phenanthrene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Phenol	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
Pyrene	9.5	U	9.5	ug/L		11/18/14 07:46	11/25/14 00:02	1
1,2-Diphenylhydrazine	0.95	U	0.95	ug/L		11/18/14 07:46	11/25/14 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	24		10 - 135	11/18/14 07:46	11/25/14 00:02	1
2,4,6-Tribromophenol	35		10 - 142	11/18/14 07:46	11/25/14 00:02	1
Nitrobenzene-d5	58		44 - 110	11/18/14 07:46	11/25/14 00:02	1
Phenol-d5	17		10 - 132	11/18/14 07:46	11/25/14 00:02	1
Terphenyl-d14	24		24 - 135	11/18/14 07:46	11/25/14 00:02	1
2-Fluorobiphenyl (Surr)	53		38 - 110	11/18/14 07:46	11/25/14 00:02	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 608 - Organochlorine Pesticides in Water

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
alpha-BHC	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
beta-BHC	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
delta-BHC	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
gamma-BHC (Lindane)	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Chlordane (technical)	0.48	U	0.48	ug/L		11/15/14 08:39	11/24/14 03:46	1
Chlordane (technical) Peak 1	0.48	U	0.48	ug/L		11/15/14 08:39	11/24/14 03:46	1
Chlordane (technical) Peak 2	0.48	U	0.48	ug/L		11/15/14 08:39	11/24/14 03:46	1
Chlordane (technical) Peak 3	0.48	U	0.48	ug/L		11/15/14 08:39	11/24/14 03:46	1
Chlordane (technical) Peak 4	0.48	U	0.48	ug/L		11/15/14 08:39	11/24/14 03:46	1
4,4'-DDD	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
4,4'-DDE	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
4,4'-DDT	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Dieldrin	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Endosulfan I	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Endosulfan II	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Endosulfan sulfate	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Endrin	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Endrin aldehyde	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Heptachlor	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Heptachlor epoxide	0.048	U	0.048	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene Peak 1	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene Peak 2	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene Peak 3	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene Peak 4	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Toxaphene Peak 5	1.9	U	1.9	ug/L		11/15/14 08:39	11/24/14 03:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 151			11/15/14 08:39	11/24/14 03:46	1
Tetrachloro-m-xylene	70		10 - 151			11/15/14 08:39	11/24/14 03:46	1

TestAmerica Canton

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U *	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1221	0.095	U	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1232	0.095	U	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1242	0.095	U	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1248	0.095	U	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1254	0.095	U	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Aroclor-1260	0.095	U *	0.095	ug/L		11/14/14 09:55	11/15/14 11:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45		10 - 114			11/14/14 09:55	11/15/14 11:36	1
Tetrachloro-m-xylene	71		15 - 131			11/14/14 09:55	11/15/14 11:36	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.15		0.050	mg/L		11/14/14 09:20	11/17/14 15:27	1
Nickel	0.10		0.010	mg/L		11/14/14 09:20	11/17/14 15:27	1
Lead	0.050	U	0.050	mg/L		11/14/14 09:20	11/17/14 15:27	1
Zinc	0.020	U	0.020	mg/L		11/14/14 09:20	11/17/14 15:27	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/14/14 15:30	11/17/14 17:43	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

General Chemistry

Client Sample ID: WT-012607-111214-EE-001

Date Collected: 11/12/14 15:00

Date Received: 11/13/14 09:15

Lab Sample ID: 240-44333-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		11/20/14 09:35	11/20/14 09:35	1
Total Suspended Solids	20		4.0	mg/L			11/19/14 08:37	1
Cr (VI)	0.0050	U	0.0050	mg/L			11/13/14 13:26	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

GC/MS VOA

Analysis Batch: 156718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	624	
LCS 240-156718/6	Lab Control Sample	Total/NA	Water	624	
MB 240-156718/5	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 157135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	625	
LCS 240-157135/11-A	Lab Control Sample	Total/NA	Water	625	
MB 240-157135/10-A	Method Blank	Total/NA	Water	625	

Prep Batch: 157136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	3510C	
MB 240-157136/7-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 158186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	625	157135
LCS 240-157135/11-A	Lab Control Sample	Total/NA	Water	625	157135
MB 240-157135/10-A	Method Blank	Total/NA	Water	625	157135

Analysis Batch: 158770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	625	157136
MB 240-157136/7-A	Method Blank	Total/NA	Water	625	157136

GC Semi VOA

Prep Batch: 156622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	3510C	
LCS 240-156622/13-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-156622/12-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 156759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	608	156622

Prep Batch: 156782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	608	
LCS 240-156782/7-A	Lab Control Sample	Total/NA	Water	608	
MB 240-156782/6-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 157064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-156622/13-A	Lab Control Sample	Total/NA	Water	608	156622
MB 240-156622/12-A	Method Blank	Total/NA	Water	608	156622

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

GC Semi VOA (Continued)

Analysis Batch: 158082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	608	156782
LCS 240-156782/7-A	Lab Control Sample	Total/NA	Water	608	156782
MB 240-156782/6-A	Method Blank	Total/NA	Water	608	156782

Metals

Prep Batch: 156608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total Recoverable	Water	200.7	
LCS 240-156608/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-156608/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 156616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	245.1	
LCS 240-156616/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-156616/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 157156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total Recoverable	Water	200.7 Rev 4.4	156608
LCS 240-156608/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	156608
MB 240-156608/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	156608

Analysis Batch: 157161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	245.1	156616
LCS 240-156616/2-A	Lab Control Sample	Total/NA	Water	245.1	156616
MB 240-156616/1-A	Method Blank	Total/NA	Water	245.1	156616

General Chemistry

Analysis Batch: 156476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	SM 3500 CR D	
240-44333-1 MS	WT-012607-111214-EE-001	Total/NA	Water	SM 3500 CR D	
240-44333-1 MSD	WT-012607-111214-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-156476/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-156476/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 157384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	SM 2540D	
LCS 240-157384/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-157384/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 157625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	1664A	
LCS 240-157625/2-A	Lab Control Sample	Total/NA	Water	1664A	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

General Chemistry (Continued)

Prep Batch: 157625 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-157625/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 157642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-44333-1	WT-012607-111214-EE-001	Total/NA	Water	1664A	157625
LCS 240-157625/2-A	Lab Control Sample	Total/NA	Water	1664A	157625
MB 240-157625/1-A	Method Blank	Total/NA	Water	1664A	157625

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Lab Sample ID: MB 240-156718/5

Matrix: Water

Analysis Batch: 156718

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,1,2-Trichloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Xylenes, Total	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,1-Dichloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,1-Dichloroethene	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,2-Dichloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,2-Dichloropropane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Acrolein	10	U	10	ug/L			11/14/14 17:26	1
Acrylonitrile	10	U	10	ug/L			11/14/14 17:26	1
Benzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Bromoform	1.0	U	1.0	ug/L			11/14/14 17:26	1
Bromomethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Carbon tetrachloride	1.0	U	1.0	ug/L			11/14/14 17:26	1
Chlorobenzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Chlorodibromomethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Chloroethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Chloroform	1.0	U	1.0	ug/L			11/14/14 17:26	1
Chloromethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
2-Chloroethyl vinyl ether	2.0	U	2.0	ug/L			11/14/14 17:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Dichlorobromomethane	1.0	U	1.0	ug/L			11/14/14 17:26	1
Ethylbenzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,2-Dichlorobenzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Tetrachloroethene	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,3-Dichlorobenzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Toluene	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,4-Dichlorobenzene	1.0	U	1.0	ug/L			11/14/14 17:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Trichloroethene	1.0	U	1.0	ug/L			11/14/14 17:26	1
Vinyl chloride	1.0	U	1.0	ug/L			11/14/14 17:26	1
Methylene Chloride	1.0	U	1.0	ug/L			11/14/14 17:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	ug/L			11/14/14 17:26	1
1,3-Dichloropropene, Total	1.0	U	1.0	ug/L			11/14/14 17:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		80 - 120		11/14/14 17:26	1
1,2-Dichloroethane-d4 (Surr)	92		80 - 125		11/14/14 17:26	1
Toluene-d8 (Surr)	99		80 - 120		11/14/14 17:26	1

Lab Sample ID: LCS 240-156718/6

Matrix: Water

Analysis Batch: 156718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	19.3		ug/L		96	52 - 150
1,1-Dichloroethane	20.0	19.5		ug/L		98	59 - 155
1,1-Dichloroethene	20.0	19.6		ug/L		98	10 - 234

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Lab Sample ID: LCS 240-156718/6

Matrix: Water

Analysis Batch: 156718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	20.0	17.1		ug/L		86	49 - 155
1,2-Dichloropropane	20.0	19.1		ug/L		95	10 - 210
Benzene	20.0	19.8		ug/L		99	37 - 151
Bromoform	20.0	19.3		ug/L		97	45 - 169
Bromomethane	20.0	21.7		ug/L		108	10 - 242
Carbon tetrachloride	20.0	26.3		ug/L		132	70 - 140
Chlorobenzene	20.0	20.0		ug/L		100	37 - 160
Chlorodibromomethane	20.0	19.1		ug/L		95	53 - 149
Chloroethane	20.0	18.5		ug/L		93	14 - 230
Chloroform	20.0	17.9		ug/L		89	51 - 138
Chloromethane	20.0	16.3		ug/L		81	10 - 273
2-Chloroethyl vinyl ether	24.0	23.0		ug/L		96	10 - 305
cis-1,3-Dichloropropene	20.0	20.3		ug/L		101	10 - 227
Dichlorobromomethane	20.0	18.6		ug/L		93	35 - 155
Ethylbenzene	20.0	18.9		ug/L		94	37 - 162
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	18 - 190
Tetrachloroethene	20.0	20.5		ug/L		102	64 - 148
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	59 - 156
Toluene	20.0	19.0		ug/L		95	47 - 150
1,4-Dichlorobenzene	20.0	19.3		ug/L		96	18 - 190
trans-1,3-Dichloropropene	20.0	23.6		ug/L		118	17 - 183
Trichloroethene	20.0	21.4		ug/L		107	71 - 157
Vinyl chloride	20.0	16.9		ug/L		84	10 - 251
Methylene Chloride	20.0	17.9		ug/L		89	10 - 221
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		80 - 120
1,2-Dichloroethane-d4 (Surr)	90		80 - 125
Toluene-d8 (Surr)	101		80 - 120

Method: 625 - Dioxin Screen (GC/MS SIM)

Lab Sample ID: MB 240-157136/7-A

Matrix: Water

Analysis Batch: 158770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157136

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	NEG			ng/uL		11/18/14 07:47	11/26/14 20:19	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-157135/10-A

Matrix: Water

Analysis Batch: 158186

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157135

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-157135/10-A

Matrix: Water

Analysis Batch: 158186

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157135

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2,4-Dichlorophenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2,4-Dimethylphenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2,4-Dinitrophenol	50	U	50	ug/L		11/18/14 07:46	11/24/14 12:26	1
2,4-Dinitrotoluene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2,6-Dinitrotoluene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2-Chloronaphthalene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2-Chlorophenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
2-Nitrophenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
3,3'-Dichlorobenzidine	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
4,6-Dinitro-2-methylphenol	50	U	50	ug/L		11/18/14 07:46	11/24/14 12:26	1
4-Bromophenyl phenyl ether	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
4-Chlorophenyl phenyl ether	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
4-Nitrophenol	50	U	50	ug/L		11/18/14 07:46	11/24/14 12:26	1
Acenaphthene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Acenaphthylene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Anthracene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzidine	5.0	U	5.0	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzo[a]anthracene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzo[a]pyrene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzo[b]fluoranthene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzo[g,h,i]perylene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Benzo[k]fluoranthene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Bis(2-chloroethoxy)methane	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Bis(2-chloroethyl)ether	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Bis(2-ethylhexyl) phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
bis (2-chloroisopropyl) ether	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Butyl benzyl phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Chrysene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Dibenz(a,h)anthracene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Diethyl phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Dimethyl phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Di-n-butyl phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Di-n-octyl phthalate	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Fluoranthene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Fluorene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Hexachlorobenzene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Hexachlorobutadiene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Hexachlorocyclopentadiene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Hexachloroethane	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Indeno[1,2,3-cd]pyrene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Isophorone	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Naphthalene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Nitrobenzene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
N-Nitrosodimethylamine	1.0	U	1.0	ug/L		11/18/14 07:46	11/24/14 12:26	1
N-Nitrosodi-n-propylamine	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
N-Nitrosodiphenylamine	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
4-Chloro-3-methylphenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-157135/10-A

Matrix: Water

Analysis Batch: 158186

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157135

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Phenanthrene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Phenol	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
Pyrene	10	U	10	ug/L		11/18/14 07:46	11/24/14 12:26	1
1,2-Diphenylhydrazine	1.0	U	1.0	ug/L		11/18/14 07:46	11/24/14 12:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	32		10 - 135	11/18/14 07:46	11/24/14 12:26	1
2,4,6-Tribromophenol	45		10 - 142	11/18/14 07:46	11/24/14 12:26	1
Nitrobenzene-d5	79		44 - 110	11/18/14 07:46	11/24/14 12:26	1
Phenol-d5	21		10 - 132	11/18/14 07:46	11/24/14 12:26	1
Terphenyl-d14	89		24 - 135	11/18/14 07:46	11/24/14 12:26	1
2-Fluorobiphenyl (Surr)	75		38 - 110	11/18/14 07:46	11/24/14 12:26	1

Lab Sample ID: LCS 240-157135/11-A

Matrix: Water

Analysis Batch: 158186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	20.0	14.4		ug/L		72	44 - 142
2,4-Dichlorophenol	20.0	16.6		ug/L		83	39 - 135
2,4-Dimethylphenol	20.0	15.2		ug/L		76	32 - 119
2,4-Dinitrophenol	40.0	24.4	J	ug/L		61	0 - 191
2,4-Dinitrotoluene	20.0	18.5		ug/L		92	39 - 139
2,6-Dinitrotoluene	20.0	18.2		ug/L		91	50 - 158
2-Chloronaphthalene	20.0	16.7		ug/L		83	60 - 118
2-Chlorophenol	20.0	16.3		ug/L		82	23 - 134
2-Nitrophenol	20.0	17.1		ug/L		85	29 - 182
3,3'-Dichlorobenzidine	40.0	37.8		ug/L		94	0 - 262
4,6-Dinitro-2-methylphenol	40.0	40.0	J	ug/L		100	0 - 181
4-Bromophenyl phenyl ether	20.0	16.8		ug/L		84	53 - 127
4-Chlorophenyl phenyl ether	20.0	16.7		ug/L		83	25 - 158
4-Nitrophenol	40.0	19.2	J	ug/L		48	0 - 132
Acenaphthene	20.0	15.9		ug/L		80	47 - 145
Acenaphthylene	20.0	17.1		ug/L		86	33 - 145
Anthracene	20.0	15.9		ug/L		80	27 - 133
Benzo[a]anthracene	20.0	17.2		ug/L		86	33 - 143
Benzo[a]pyrene	20.0	17.0		ug/L		85	17 - 163
Benzo[b]fluoranthene	20.0	16.7		ug/L		84	24 - 159
Benzo[g,h,i]perylene	20.0	17.6		ug/L		88	0 - 219
Benzo[k]fluoranthene	20.0	18.9		ug/L		95	11 - 162
Bis(2-chloroethoxy)methane	20.0	16.6		ug/L		83	33 - 184
Bis(2-chloroethyl)ether	20.0	16.6		ug/L		83	12 - 158
Bis(2-ethylhexyl) phthalate	20.0	18.7		ug/L		93	8 - 158
Butyl benzyl phthalate	20.0	17.6		ug/L		88	0 - 152
Chrysene	20.0	16.6		ug/L		83	17 - 168
Dibenz[a,h]anthracene	20.0	17.8		ug/L		89	0 - 227
Diethyl phthalate	20.0	16.9		ug/L		85	0 - 114

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-157135/11-A

Matrix: Water

Analysis Batch: 158186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	20.0	15.5		ug/L		77	0 - 112
Di-n-butyl phthalate	20.0	17.5		ug/L		87	1 - 118
Di-n-octyl phthalate	20.0	18.6		ug/L		93	4 - 146
Fluoranthene	20.0	16.9		ug/L		85	26 - 137
Fluorene	20.0	16.7		ug/L		83	59 - 121
Hexachlorobenzene	20.0	16.0		ug/L		80	0 - 152
Hexachlorobutadiene	20.0	13.0		ug/L		65	24 - 116
Hexachloroethane	20.0	14.5		ug/L		73	40 - 113
Indeno[1,2,3-cd]pyrene	20.0	18.5		ug/L		93	0 - 171
Isophorone	20.0	17.3		ug/L		86	21 - 196
Naphthalene	20.0	15.2		ug/L		76	21 - 133
Nitrobenzene	20.0	16.9		ug/L		84	35 - 180
N-Nitrosodi-n-propylamine	20.0	17.1		ug/L		85	0 - 230
4-Chloro-3-methylphenol	20.0	16.7		ug/L		83	22 - 147
Pentachlorophenol	40.0	22.9		ug/L		57	14 - 176
Phenanthrene	20.0	16.1		ug/L		81	54 - 120
Phenol	20.0	8.69	J	ug/L		43	5 - 112
Pyrene	20.0	17.5		ug/L		88	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	41		10 - 135
2,4,6-Tribromophenol	58		10 - 142
Nitrobenzene-d5	85		44 - 110
Phenol-d5	31		10 - 132
Terphenyl-d14	87		24 - 135
2-Fluorobiphenyl (Surr)	80		38 - 110

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 240-156782/6-A

Matrix: Water

Analysis Batch: 158082

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 156782

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
alpha-BHC	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
beta-BHC	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
delta-BHC	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
gamma-BHC (Lindane)	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Chlordane (technical)	0.50	U	0.50	ug/L		11/15/14 08:39	11/24/14 04:07	1
Chlordane (technical) Peak 1	0.50	U	0.50	ug/L		11/15/14 08:39	11/24/14 04:07	1
Chlordane (technical) Peak 2	0.50	U	0.50	ug/L		11/15/14 08:39	11/24/14 04:07	1
Chlordane (technical) Peak 3	0.50	U	0.50	ug/L		11/15/14 08:39	11/24/14 04:07	1
Chlordane (technical) Peak 4	0.50	U	0.50	ug/L		11/15/14 08:39	11/24/14 04:07	1
4,4'-DDD	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
4,4'-DDE	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
4,4'-DDT	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Dieldrin	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 240-156782/6-A

Matrix: Water

Analysis Batch: 158082

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 156782

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Endosulfan II	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Endosulfan sulfate	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Endrin	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Endrin aldehyde	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Heptachlor	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Heptachlor epoxide	0.050	U	0.050	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene Peak 1	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene Peak 2	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene Peak 3	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene Peak 4	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1
Toxaphene Peak 5	2.0	U	2.0	ug/L		11/15/14 08:39	11/24/14 04:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		10 - 151	11/15/14 08:39	11/24/14 04:07	1
Tetrachloro-m-xylene	79		10 - 151	11/15/14 08:39	11/24/14 04:07	1

Lab Sample ID: LCS 240-156782/7-A

Matrix: Water

Analysis Batch: 158082

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 156782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.425		ug/L		85	42 - 122
alpha-BHC	0.500	0.452		ug/L		90	37 - 134
beta-BHC	0.500	0.480		ug/L		96	17 - 147
delta-BHC	0.500	0.458		ug/L		92	19 - 140
gamma-BHC (Lindane)	0.500	0.451		ug/L		90	32 - 127
4,4'-DDD	0.500	0.527		ug/L		105	31 - 141
4,4'-DDE	0.500	0.477		ug/L		95	30 - 145
4,4'-DDT	0.500	0.551		ug/L		110	25 - 160
Dieldrin	0.500	0.474		ug/L		95	36 - 146
Endosulfan I	0.500	0.397		ug/L		79	45 - 153
Endosulfan II	0.500	0.428		ug/L		86	10 - 202
Endosulfan sulfate	0.500	0.503		ug/L		101	26 - 144
Endrin	0.500	0.514		ug/L		103	30 - 147
Heptachlor	0.500	0.456		ug/L		91	34 - 111
Heptachlor epoxide	0.500	0.472		ug/L		94	37 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	103		10 - 151
Tetrachloro-m-xylene	94		10 - 151

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Lab Sample ID: MB 240-156622/12-A

Matrix: Water

Analysis Batch: 157064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 156622

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1221	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1232	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1242	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1248	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1254	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1
Aroclor-1260	0.10	U	0.10	ug/L		11/14/14 09:55	11/17/14 19:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		10 - 114	11/14/14 09:55	11/17/14 19:25	1
Tetrachloro-m-xylene	77		15 - 131	11/14/14 09:55	11/17/14 19:25	1

Lab Sample ID: LCS 240-156622/13-A

Matrix: Water

Analysis Batch: 157064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 156622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	9.20	*	ug/L		368	50 - 114
Aroclor-1260	2.50	8.68	*	ug/L		347	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	76		10 - 114
Tetrachloro-m-xylene	82		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-156608/1-A

Matrix: Water

Analysis Batch: 157156

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 156608

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		11/14/14 09:20	11/17/14 14:16	1
Nickel	0.010	U	0.010	mg/L		11/14/14 09:20	11/17/14 14:16	1
Lead	0.050	U	0.050	mg/L		11/14/14 09:20	11/17/14 14:16	1
Zinc	0.020	U	0.020	mg/L		11/14/14 09:20	11/17/14 14:16	1

Lab Sample ID: LCS 240-156608/2-A

Matrix: Water

Analysis Batch: 157156

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 156608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.197		mg/L		99	85 - 115
Nickel	0.500	0.496		mg/L		99	85 - 115
Lead	0.500	0.491		mg/L		98	85 - 115
Zinc	0.500	0.508		mg/L		102	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-156616/1-A
Matrix: Water
Analysis Batch: 157161

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156616

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		11/14/14 15:30	11/17/14 16:42	1

Lab Sample ID: LCS 240-156616/2-A
Matrix: Water
Analysis Batch: 157161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 156616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00521		mg/L		104	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-157625/1-A
Matrix: Water
Analysis Batch: 157642

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 157625

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		11/20/14 09:35	11/20/14 09:35	1

Lab Sample ID: LCS 240-157625/2-A
Matrix: Water
Analysis Batch: 157642

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 157625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	39.3		mg/L		98	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-157384/1
Matrix: Water
Analysis Batch: 157384

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			11/19/14 08:37	1

Lab Sample ID: LCS 240-157384/2
Matrix: Water
Analysis Batch: 157384

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	77.4	79.0		mg/L		102	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-156476/3

Matrix: Water

Analysis Batch: 156476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			11/13/14 13:18	1

Lab Sample ID: LCS 240-156476/4

Matrix: Water

Analysis Batch: 156476

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.230		mg/L		92	80 - 118

Lab Sample ID: 240-44333-1 MS

Matrix: Water

Analysis Batch: 156476

Client Sample ID: WT-012607-111214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0050	U	0.250	0.110		mg/L		44	41 - 136

Lab Sample ID: 240-44333-1 MSD

Matrix: Water

Analysis Batch: 156476

Client Sample ID: WT-012607-111214-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.0050	U	0.250	0.104		mg/L		41	41 - 136	6	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	12DCE (80-125)	TOL (80-120)
240-44333-1	WT-012607-111214-EE-001	90	97	104
LCS 240-156718/6	Lab Control Sample	86	90	101
MB 240-156718/5	Method Blank	87	92	99

Surrogate Legend

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

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (10-135)	TBP (10-142)	NBZ (44-110)	PHL (10-132)	TPH (24-135)	FBP (38-110)
240-44333-1	WT-012607-111214-EE-001	24	35	58	17	24	53
LCS 240-157135/11-A	Lab Control Sample	41	58	85	31	87	80
MB 240-157135/10-A	Method Blank	32	45	79	21	89	75

Surrogate Legend

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

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (10-151)	DCB2 (10-151)	TCX1 (10-151)	TCX2 (10-151)
240-44333-1	WT-012607-111214-EE-001	87	76	70	69
LCS 240-156782/7-A	Lab Control Sample	103	103	94	89
MB 240-156782/6-A	Method Blank	94	94	79	92

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (10-114)	TCX2 (15-131)
240-44333-1	WT-012607-111214-EE-001	45	71
LCS 240-156622/13-A	Lab Control Sample	76	82
MB 240-156622/12-A	Method Blank	71	77

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

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Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

Client Sample ID: WT-012607-111214-EE-001

Lab Sample ID: 240-44333-1

Date Collected: 11/12/14 15:00

Matrix: Water

Date Received: 11/13/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	156718	11/15/14 01:58	TJL1	TAL CAN
Total/NA	Prep	625			157135	11/18/14 07:46	JDR	TAL CAN
Total/NA	Analysis	625		1	158186	11/25/14 00:02	JMG	TAL CAN
Total/NA	Prep	3510C			157136	11/18/14 07:47	CSC	TAL CAN
Total/NA	Analysis	625		1	158770	11/26/14 20:37	MRU	TAL CAN
Total/NA	Prep	3510C			156622	11/14/14 09:55	JDS	TAL CAN
Total/NA	Analysis	608		1	156759	11/15/14 11:36	LSH	TAL CAN
Total/NA	Prep	608			156782	11/15/14 08:39	MG	TAL CAN
Total/NA	Analysis	608		1	158082	11/24/14 03:46	BPM	TAL CAN
Total Recoverable	Prep	200.7			156608	11/14/14 09:20	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	157156	11/17/14 15:27	ADS	TAL CAN
Total/NA	Prep	245.1			156616	11/14/14 15:30	WAL	TAL CAN
Total/NA	Analysis	245.1		1	157161	11/17/14 17:43	ADS	TAL CAN
Total/NA	Analysis	1664A		1	157642	11/20/14 09:35	NJE	TAL CAN
Total/NA	Prep	1664A			157625	11/20/14 09:35	NJE	TAL CAN
Total/NA	Analysis	SM 2540D		1	157384	11/19/14 08:37	AS1	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	156476	11/13/14 13:26	NJE	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: 12607-T01, RACER Eckles Rd

TestAmerica Job ID: 240-44333-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15 *
Connecticut	State Program	1	PH-0590	12-31-15
Florida	NELAP	4	E87225	06-30-15 *
Georgia	State Program	4	N/A	06-30-15 *
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	03-31-15 *
Kentucky (UST)	State Program	4	58	06-30-15 *
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15 *
New York	NELAP	2	10975	03-31-15 *
Ohio VAP	State Program	5	CL0024	10-31-15
Oregon	NELAP	10	4062	02-23-16
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-44333 Chain of Custody

8.2.3

**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: DL-13297

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 012607-TEL14-003		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-TEL14-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Hockler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rawa Fleisher, CRA						Airbill No:	
Sampler(s): Erik Englund / CRA		SAMPLE TYPE		Total Containers/Sample		MS/MSD Request	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
Item		DATE		TIME			
1 WT-012607-111214-EE-001		11/12/14		1500			
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15							
Total Number of Containers: 15		Total Number of Containers: 15		Notes/ Special Requirements:			
TAT Required in business days (use separate COCs for different TATs):		DATE		TIME		DATE	
1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other: STD		11/12/14		1545		11/13/14 9:15	
RELINQUISHED BY: Erik Englund		COMPANY: CRA		RECEIVED BY: [Signature]		COMPANY: TRAC	
1.		2.		3.			

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

Distribution: WHITE – Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK – Shipper

GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-012607-111214-EE-001	240-44333-E-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-111214-EE-001	240-44333-N-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-012607-111214-EE-001	240-44333-O-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-45310-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

12/19/2014 10:20:29 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Job ID: 240-45310-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-45310-1

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 12/11/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.1 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 12/12/2014 and analyzed on 12/15/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 160665.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 12/12/2014 and analyzed on 12/15/2014.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Job ID: 240-45310-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

MERCURY

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 12/12/2014 and analyzed on 12/16/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 12/17/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/15/2014.

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

HEXAVALENT CHROMIUM

Sample WT-012607-121014-EE-001 (240-45310-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 12/11/2014.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Qualifiers

GC Semi VOA

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

Metals

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

General Chemistry

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

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-45310-1	WT-012607-121014-EE-001	Water	12/10/14 14:00	12/11/14 09:45

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Client Sample ID: WT-012607-121014-EE-001

Lab Sample ID: 240-45310-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.092		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.055		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Cr (VI)	0.0079		0.0050	mg/L	1		SM 3500 CR D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

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

Client Sample ID: WT-012607-121014-EE-001

Lab Sample ID: 240-45310-1

Date Collected: 12/10/14 14:00

Matrix: Water

Date Received: 12/11/14 09:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1221	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1232	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1242	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1248	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1254	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1
Aroclor-1260	0.095	U	0.095	ug/L		12/12/14 06:33	12/15/14 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	65		10 - 114	12/12/14 06:33	12/15/14 17:53	1
Tetrachloro-m-xylene	87		15 - 131	12/12/14 06:33	12/15/14 17:53	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-121014-EE-001

Date Collected: 12/10/14 14:00

Date Received: 12/11/14 09:45

Lab Sample ID: 240-45310-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.092		0.050	mg/L		12/12/14 09:59	12/15/14 14:13	1
Nickel	0.055		0.010	mg/L		12/12/14 09:59	12/15/14 14:13	1
Lead	0.050	U	0.050	mg/L		12/12/14 09:59	12/15/14 14:13	1
Zinc	0.020	U	0.020	mg/L		12/12/14 09:59	12/15/14 14:13	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-121014-EE-001

Date Collected: 12/10/14 14:00

Date Received: 12/11/14 09:45

Lab Sample ID: 240-45310-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/12/14 15:35	12/16/14 09:11	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

General Chemistry

Client Sample ID: WT-012607-121014-EE-001

Date Collected: 12/10/14 14:00

Date Received: 12/11/14 09:45

Lab Sample ID: 240-45310-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		12/17/14 08:07	12/17/14 08:07	1
Total Suspended Solids	4.0	U	4.0	mg/L			12/15/14 08:59	1
Cr (VI)	0.0079		0.0050	mg/L			12/11/14 10:21	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

GC Semi VOA

Prep Batch: 160665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	3520C	
LCS 240-160665/19-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-160665/18-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 161094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	608	160665
LCS 240-160665/19-A	Lab Control Sample	Total/NA	Water	608	160665
MB 240-160665/18-A	Method Blank	Total/NA	Water	608	160665

Metals

Prep Batch: 160737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total Recoverable	Water	200.7	
LCS 240-160737/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-160737/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 160740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	245.1	
LCS 240-160740/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-160740/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 161114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total Recoverable	Water	200.7 Rev 4.4	160737
LCS 240-160737/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	160737
MB 240-160737/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	160737

Analysis Batch: 161229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	245.1	160740
LCS 240-160740/2-A	Lab Control Sample	Total/NA	Water	245.1	160740
MB 240-160740/1-A	Method Blank	Total/NA	Water	245.1	160740

General Chemistry

Analysis Batch: 160531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-160531/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-160531/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 160979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	SM 2540D	
LCS 240-160979/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-160979/1	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

General Chemistry (Continued)

Prep Batch: 161384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	1664A	
LCS 240-161384/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-161384/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 161391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-45310-1	WT-012607-121014-EE-001	Total/NA	Water	1664A	161384
LCS 240-161384/2-A	Lab Control Sample	Total/NA	Water	1664A	161384
MB 240-161384/1-A	Method Blank	Total/NA	Water	1664A	161384

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

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

Lab Sample ID: MB 240-160665/18-A

Matrix: Water

Analysis Batch: 161094

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160665

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1221	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1232	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1242	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1248	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1254	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1
Aroclor-1260	0.10	U	0.10	ug/L		12/12/14 06:33	12/15/14 19:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		10 - 114	12/12/14 06:33	12/15/14 19:16	1
Tetrachloro-m-xylene	92		15 - 131	12/12/14 06:33	12/15/14 19:16	1

Lab Sample ID: LCS 240-160665/19-A

Matrix: Water

Analysis Batch: 161094

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.70		ug/L		108	50 - 114
Aroclor-1260	2.50	2.39		ug/L		95	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		10 - 114
Tetrachloro-m-xylene	93		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-160737/1-A

Matrix: Water

Analysis Batch: 161114

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 160737

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		12/12/14 09:59	12/15/14 12:38	1
Nickel	0.010	U	0.010	mg/L		12/12/14 09:59	12/15/14 12:38	1
Lead	0.050	U	0.050	mg/L		12/12/14 09:59	12/15/14 12:38	1
Zinc	0.020	U	0.020	mg/L		12/12/14 09:59	12/15/14 12:38	1

Lab Sample ID: LCS 240-160737/2-A

Matrix: Water

Analysis Batch: 161114

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 160737

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.186		mg/L		93	85 - 115
Nickel	0.500	0.469		mg/L		94	85 - 115
Lead	0.500	0.456		mg/L		91	85 - 115
Zinc	0.500	0.472		mg/L		94	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-160740/1-A
Matrix: Water
Analysis Batch: 161229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 160740

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		12/12/14 15:35	12/16/14 08:47	1

Lab Sample ID: LCS 240-160740/2-A
Matrix: Water
Analysis Batch: 161229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 160740

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00509		mg/L		102	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-161384/1-A
Matrix: Water
Analysis Batch: 161391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 161384

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		12/17/14 08:07	12/17/14 08:07	1

Lab Sample ID: LCS 240-161384/2-A
Matrix: Water
Analysis Batch: 161391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 161384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	35.4		mg/L		89	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-160979/1
Matrix: Water
Analysis Batch: 160979

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			12/15/14 08:59	1

Lab Sample ID: LCS 240-160979/2
Matrix: Water
Analysis Batch: 160979

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	77.4	80.0		mg/L		103	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-160531/3

Matrix: Water

Analysis Batch: 160531

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L	-		12/11/14 10:16	1

Lab Sample ID: LCS 240-160531/4

Matrix: Water

Analysis Batch: 160531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.280		mg/L	-	112	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-45310-1	WT-012607-121014-EE-001	65	87
LCS 240-160665/19-A	Lab Control Sample	79	93
MB 240-160665/18-A	Method Blank	81	92

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

Client Sample ID: WT-012607-121014-EE-001

Lab Sample ID: 240-45310-1

Date Collected: 12/10/14 14:00

Matrix: Water

Date Received: 12/11/14 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			160665	12/12/14 06:33	CSC	TAL CAN
Total/NA	Analysis	608		1	161094	12/15/14 17:53	LSH	TAL CAN
Total Recoverable	Prep	200.7			160737	12/12/14 09:59	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	161114	12/15/14 14:13	KLC	TAL CAN
Total/NA	Prep	245.1			160740	12/12/14 15:35	WAL	TAL CAN
Total/NA	Analysis	245.1		1	161229	12/16/14 09:11	ADS	TAL CAN
Total/NA	Analysis	1664A		1	161391	12/17/14 08:07	BLW	TAL CAN
Total/NA	Prep	1664A			161384	12/17/14 08:07	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	160979	12/15/14 08:59	AS1	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	160531	12/11/14 10:21	BLW	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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-45310-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15
Connecticut	State Program	1	PH-0590	12-31-14
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	01-31-15
Kentucky (UST)	State Program	4	58	06-30-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-14
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-15

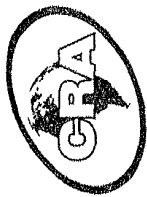
* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-45310 Chain of Custody



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO.: PL-12562

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: Lab - 24005880		CRA - 012607-101414-003		Laboratory Name: Test America		Lab Location: N Canton, OH		SSOW ID: 12607-101414-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Carrier:		Cooler No:	
Project Location: Livonia, MI		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Airbill No:	
Chemistry Contact: Rana Fleisher, CRA		Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)		Nitric Acid (HNO ₃)	
Sampler(s): Erik Engren, CRA		Matrix Code		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		Methanol/Water (Soil)	
		(see back of COC)		VOC		EnCores 3x5-g, 1x25-g		Other:	
		DATE (mm/dd/yyyy)		TIME (hh:mm)		Total Containers/Sample		MS/MSD Request	
WT-012607-121014-EE-COI		12/10/14		1400		6			
1		1		1		1		1	
2		2		2		2		2	
3		3		3		3		3	
4		4		4		4		4	
5		5		5		5		5	
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177		177		177		177		177	
178		178		178		178		178	
179		179		179		179		179	
180		180		180		180		180	
181		181		181		181		181	
182		182		182		182		182	
183		183		183		183		183	
184		184		184		184		184	
185		185		185		185		185	
186		186		186		186		186	
187		187		187		187		187	
188		188		188		188		188	
189		189		189		189		189	
190		190		190		190		190	
191		191		191		191		191	
192		192		192		192		192	
193		193		193		193		193	
194		194		194		194		194	
195		195		195		195		195	
196		196		196		196		196	
197		197		197		197		197	
198		198		198		198		198	
199		199		199		199		199	
200		200		200		200		200	
201		201		201		201		201	

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-012607-121014-EE-001	240-45310-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-121014-EE-001	240-45310-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-012607-121014-EE-001	240-45310-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-46297-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

1/23/2015 8:48:58 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Job ID: 240-46297-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-46297-1

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 01/15/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.5 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 01/16/2015 and analyzed on 01/20/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 01/16/2015 and analyzed on 01/19/2015.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: WT-012607-011415-EE-001 (240-46297-1) The continuing calibration blanks and method blanks may not support the lower PQL.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Job ID: 240-46297-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

MERCURY

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 01/16/2015 and analyzed on 01/19/2015.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 01/22/2015.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 01/19/2015.

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

HEXAVALENT CHROMIUM

Sample WT-012607-011415-EE-001 (240-46297-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 01/15/2015.

Cr (VI) failed the recovery criteria low for the MS of sample WT-012607-011415-EE-001MS (240-46297-1) in batch 240-164294.

Cr (VI) failed the recovery criteria low for the MSD of sample WT-012607-011415-EE-001MSD (240-46297-1) in batch 240-164294.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Qualifiers

GC Semi VOA

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

Metals

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

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-46297-1	WT-012607-011415-EE-001	Water	01/14/15 14:45	01/15/15 09:20

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Client Sample ID: WT-012607-011415-EE-001

Lab Sample ID: 240-46297-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.11		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.098		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	6.0		4.0	mg/L	1		SM 2540D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN
SM 3500 CR D	Chromium, Hexavalent	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

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

Client Sample ID: WT-012607-011415-EE-001

Date Collected: 01/14/15 14:45

Date Received: 01/15/15 09:20

Lab Sample ID: 240-46297-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1221	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1232	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1242	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1248	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1254	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Aroclor-1260	0.095	U	0.095	ug/L		01/16/15 07:33	01/20/15 10:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	43		10 - 114			01/16/15 07:33	01/20/15 10:24	1
Tetrachloro-m-xylene	62		15 - 131			01/16/15 07:33	01/20/15 10:24	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-011415-EE-001

Date Collected: 01/14/15 14:45

Date Received: 01/15/15 09:20

Lab Sample ID: 240-46297-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.11		0.050	mg/L		01/16/15 08:34	01/19/15 14:13	1
Nickel	0.098		0.010	mg/L		01/16/15 08:34	01/19/15 14:13	1
Lead	0.050	U	0.050	mg/L		01/16/15 08:34	01/19/15 14:13	1
Zinc	0.020	U	0.020	mg/L		01/16/15 08:34	01/19/15 14:13	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-011415-EE-001

Date Collected: 01/14/15 14:45

Date Received: 01/15/15 09:20

Lab Sample ID: 240-46297-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		01/16/15 11:50	01/19/15 15:00	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

General Chemistry

Client Sample ID: WT-012607-011415-EE-001

Date Collected: 01/14/15 14:45

Date Received: 01/15/15 09:20

Lab Sample ID: 240-46297-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		01/22/15 09:29	01/22/15 09:29	1
Total Suspended Solids	6.0		4.0	mg/L			01/19/15 08:45	1
Cr (VI)	0.0050	U	0.0050	mg/L			01/15/15 12:15	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

GC Semi VOA

Prep Batch: 164365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	3510C	
LCS 240-164365/12-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-164365/11-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 164627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	608	164365
LCS 240-164365/12-A	Lab Control Sample	Total/NA	Water	608	164365
MB 240-164365/11-A	Method Blank	Total/NA	Water	608	164365

Metals

Prep Batch: 164390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total Recoverable	Water	200.7	
LCS 240-164390/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-164390/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 164392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	245.1	
LCS 240-164392/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-164392/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 164494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total Recoverable	Water	200.7 Rev 4.4	164390
MB 240-164390/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	164390

Analysis Batch: 164638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	245.1	164392
LCS 240-164392/2-A	Lab Control Sample	Total/NA	Water	245.1	164392
MB 240-164392/1-A	Method Blank	Total/NA	Water	245.1	164392

Analysis Batch: 164650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-164390/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	164390

General Chemistry

Analysis Batch: 164294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	SM 3500 CR D	
240-46297-1 MS	WT-012607-011415-EE-001	Total/NA	Water	SM 3500 CR D	
240-46297-1 MSD	WT-012607-011415-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-164294/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-164294/3	Method Blank	Total/NA	Water	SM 3500 CR D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

General Chemistry (Continued)

Analysis Batch: 164518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	SM 2540D	
LCS 240-164518/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-164518/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 165002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	1664A	
LCS 240-165002/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-165002/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 165025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-46297-1	WT-012607-011415-EE-001	Total/NA	Water	1664A	165002
LCS 240-165002/2-A	Lab Control Sample	Total/NA	Water	1664A	165002
MB 240-165002/1-A	Method Blank	Total/NA	Water	1664A	165002

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

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

Lab Sample ID: MB 240-164365/11-A

Matrix: Water

Analysis Batch: 164627

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 164365

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1221	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1232	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1242	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1248	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1254	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1
Aroclor-1260	0.10	U	0.10	ug/L		01/16/15 07:33	01/20/15 09:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		10 - 114	01/16/15 07:33	01/20/15 09:56	1
Tetrachloro-m-xylene	80		15 - 131	01/16/15 07:33	01/20/15 09:56	1

Lab Sample ID: LCS 240-164365/12-A

Matrix: Water

Analysis Batch: 164627

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 164365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.22		ug/L		89	50 - 114
Aroclor-1260	2.50	2.05		ug/L		82	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	72		10 - 114
Tetrachloro-m-xylene	79		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-164390/1-A

Matrix: Water

Analysis Batch: 164494

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 164390

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		01/16/15 08:34	01/19/15 13:33	1
Nickel	0.010	U	0.010	mg/L		01/16/15 08:34	01/19/15 13:33	1
Lead	0.050	U	0.050	mg/L		01/16/15 08:34	01/19/15 13:33	1
Zinc	0.020	U	0.020	mg/L		01/16/15 08:34	01/19/15 13:33	1

Lab Sample ID: LCS 240-164390/2-A

Matrix: Water

Analysis Batch: 164650

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 164390

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.181		mg/L		91	85 - 115
Nickel	0.500	0.450		mg/L		90	85 - 115
Lead	0.500	0.444		mg/L		89	85 - 115
Zinc	0.500	0.448		mg/L		90	85 - 115

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-164392/1-A

Matrix: Water

Analysis Batch: 164638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 164392

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		01/16/15 11:50	01/19/15 14:50	1

Lab Sample ID: LCS 240-164392/2-A

Matrix: Water

Analysis Batch: 164638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 164392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00502		mg/L		100	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-165002/1-A

Matrix: Water

Analysis Batch: 165025

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165002

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		01/22/15 09:29	01/22/15 09:29	1

Lab Sample ID: LCS 240-165002/2-A

Matrix: Water

Analysis Batch: 165025

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	34.2		mg/L		86	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-164518/1

Matrix: Water

Analysis Batch: 164518

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L			01/19/15 08:45	1

Lab Sample ID: LCS 240-164518/2

Matrix: Water

Analysis Batch: 164518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	22.3	23.0		mg/L		103	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-164294/3

Matrix: Water

Analysis Batch: 164294

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			01/15/15 12:02	1

Lab Sample ID: LCS 240-164294/4

Matrix: Water

Analysis Batch: 164294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.254		mg/L		102	80 - 118

Lab Sample ID: 240-46297-1 MS

Matrix: Water

Analysis Batch: 164294

Client Sample ID: WT-012607-011415-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0050	U	0.250	0.00914	F1	mg/L		4	41 - 136

Lab Sample ID: 240-46297-1 MSD

Matrix: Water

Analysis Batch: 164294

Client Sample ID: WT-012607-011415-EE-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.0050	U	0.250	0.00781	F1	mg/L		3	41 - 136	16	20

TestAmerica Canton

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-46297-1	WT-012607-011415-EE-001	43	62
LCS 240-164365/12-A	Lab Control Sample	72	79
MB 240-164365/11-A	Method Blank	66	80

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

Client Sample ID: WT-012607-011415-EE-001

Lab Sample ID: 240-46297-1

Date Collected: 01/14/15 14:45

Matrix: Water

Date Received: 01/15/15 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			164365	01/16/15 07:33	CSC	TAL CAN
Total/NA	Analysis	608		1	164627	01/20/15 10:24	LSH	TAL CAN
Total Recoverable	Prep	200.7			164390	01/16/15 08:34	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	164494	01/19/15 14:13	KLC	TAL CAN
Total/NA	Prep	245.1			164392	01/16/15 11:50	WAL	TAL CAN
Total/NA	Analysis	245.1		1	164638	01/19/15 15:00	BW	TAL CAN
Total/NA	Analysis	1664A		1	165025	01/22/15 09:29	NJE	TAL CAN
Total/NA	Prep	1664A			165002	01/22/15 09:29	NJE	TAL CAN
Total/NA	Analysis	SM 2540D		1	164518	01/19/15 08:45	LCN	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	164294	01/15/15 12:15	NJE	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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-46297-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15 *
Connecticut	State Program	1	PH-0590	12-31-15
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	01-31-15 *
Kentucky (UST)	State Program	4	58	06-30-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15 *
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-15 *
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Canton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-46297 Chain of Custody



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO.: **PL-13128**

PAGE **1** OF **1**

(See Reverse Side for Instructions)

Project No/Phase/Task Code: Lab - 24005880 CRA 012607-10115-003		Laboratory Name: Test America		Lab Location: Canton, OH		SSOW ID: 12607-10115-012	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)			
Chemistry Contact: Rawa Flaisher, CRA		SAMPLE TYPE		MS/MSD Request			
Sampler(s): Erik Engner, CRA		Grab (G) or Comp (C)		Carrier:			
		Matrix Code		Airbill No:			
		(see back of COC)		Date Shipped:			
		Unpreserved		COMMENTS/ SPECIAL INSTRUCTIONS:			
		Hydrochloric Acid (HCl)					
		Nitric Acid (HNO ₃)					
		Sulfuric Acid (H ₂ SO ₄)					
		Sodium Hydroxide (NaOH)					
		Methanol/Water (Soil)					
		VOC					
		EnCores 3x5-g, 1x25-g					
		Other:					
		Total Containers/Sample					
		PCBs					
		HCHM (ODG)					
		Metals					
		Cr (VI), TSS					
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)			
Item							
1	WT- 012607-011415-001	1/14/15	1445	WT	C		
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
TAT Required in business days (use separate COCs for different TATs):							
1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other: STD							
RELINQUISHED BY Erik Engner		COMPANY CRA		DATE 1/14/15		TIME 1600	
RECEIVED BY 1. Katherine [Signature]		COMPANY TBR		DATE 1/15/15		TIME 9:20	
2.							
3.							

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

Distribution: WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew

CRA Form: COC-10A (20110804)



Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-012607-011415-EE-001	240-46297-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-011415-EE-001	240-46297-E-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____
WT-012607-011415-EE-001	240-46297-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-47197-1

Client Project/Site: 12607-T01-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

2/19/2015 10:14:59 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Job ID: 240-47197-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-47197-1

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 02/12/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.9 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 02/13/2015 and analyzed on 02/18/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 02/13/2015 and analyzed on 02/17/2015.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: WT-012607-021115-EE-001 (240-47197-1). The continuing calibration blanks and method blanks may not support the lower PQL.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Job ID: 240-47197-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

MERCURY

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 02/13/2015 and analyzed on 02/17/2015.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 02/13/2015.

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

TOTAL SUSPENDED SOLIDS

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 02/17/2015.

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

HEXAVALENT CHROMIUM

Sample WT-012607-021115-EE-001 (240-47197-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 02/12/2015.

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

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Qualifiers

GC Semi VOA

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

Metals

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

General Chemistry

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

Glossary

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

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-47197-1	WT-012607-021115-EE-001	Water	02/11/15 14:30	02/12/15 09:40

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Client Sample ID: WT-012607-021115-EE-001

Lab Sample ID: 240-47197-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.56		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.41		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	53		4.0	mg/L	1		SM 2540D	Recoverable Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Method	Method Description	Protocol	Laboratory
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL CAN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
1664A	HEM and SGT-HEM	1664A	TAL CAN
3500-Cr B-2009	Chromium, Hexxavalent	SM	TAL CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CAN

Protocol References:

1664A = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

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

Client Sample ID: WT-012607-021115-EE-001

Date Collected: 02/11/15 14:30

Date Received: 02/12/15 09:40

Lab Sample ID: 240-47197-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1221	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1232	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1242	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1248	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1254	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Aroclor-1260	0.095	U	0.095	ug/L		02/13/15 06:28	02/18/15 17:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45		10 - 114			02/13/15 06:28	02/18/15 17:31	1
Tetrachloro-m-xylene	60		15 - 131			02/13/15 06:28	02/18/15 17:31	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-012607-021115-EE-001

Date Collected: 02/11/15 14:30

Date Received: 02/12/15 09:40

Lab Sample ID: 240-47197-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.56		0.050	mg/L		02/13/15 11:12	02/17/15 14:10	1
Nickel	0.41		0.010	mg/L		02/13/15 11:12	02/17/15 14:10	1
Lead	0.050	U	0.050	mg/L		02/13/15 11:12	02/17/15 14:10	1
Zinc	0.020	U	0.020	mg/L		02/13/15 11:12	02/17/15 14:10	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-012607-021115-EE-001

Date Collected: 02/11/15 14:30

Date Received: 02/12/15 09:40

Lab Sample ID: 240-47197-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/13/15 13:25	02/17/15 12:42	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

General Chemistry

Client Sample ID: WT-012607-021115-EE-001

Date Collected: 02/11/15 14:30

Date Received: 02/12/15 09:40

Lab Sample ID: 240-47197-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		02/13/15 08:50	02/13/15 09:18	1
Cr (VI)	0.0050	U	0.0050	mg/L			02/12/15 12:02	1
Total Suspended Solids	53		4.0	mg/L			02/17/15 10:31	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

GC Semi VOA

Prep Batch: 167942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	3520C	
LCS 240-167942/21-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-167942/20-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 168396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	608	167942
LCS 240-167942/21-A	Lab Control Sample	Total/NA	Water	608	167942
MB 240-167942/20-A	Method Blank	Total/NA	Water	608	167942

Metals

Prep Batch: 168026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total Recoverable	Water	200.7	
LCS 240-168026/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-168026/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 168030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	245.1	
LCS 240-168030/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-168030/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 168211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total Recoverable	Water	200.7 Rev 4.4	168026
LCS 240-168026/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	168026
MB 240-168026/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	168026

Analysis Batch: 168307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	245.1	168030
LCS 240-168030/2-A	Lab Control Sample	Total/NA	Water	245.1	168030
MB 240-168030/1-A	Method Blank	Total/NA	Water	245.1	168030

General Chemistry

Analysis Batch: 167870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	3500-Cr B-2009	
LCS 240-167870/4	Lab Control Sample	Total/NA	Water	3500-Cr B-2009	
MB 240-167870/3	Method Blank	Total/NA	Water	3500-Cr B-2009	

Prep Batch: 167991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	1664A	
LCS 240-167991/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-167991/1-A	Method Blank	Total/NA	Water	1664A	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

General Chemistry (Continued)

Analysis Batch: 167999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	1664A	167991
LCS 240-167991/2-A	Lab Control Sample	Total/NA	Water	1664A	167991
MB 240-167991/1-A	Method Blank	Total/NA	Water	1664A	167991

Analysis Batch: 168250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-47197-1	WT-012607-021115-EE-001	Total/NA	Water	SM 2540D	
LCS 240-168250/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-168250/1	Method Blank	Total/NA	Water	SM 2540D	

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

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

Lab Sample ID: MB 240-167942/20-A

Matrix: Water

Analysis Batch: 168396

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1221	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1232	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1242	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1248	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1254	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1
Aroclor-1260	0.10	U	0.10	ug/L		02/13/15 06:28	02/18/15 10:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		10 - 114	02/13/15 06:28	02/18/15 10:36	1
Tetrachloro-m-xylene	84		15 - 131	02/13/15 06:28	02/18/15 10:36	1

Lab Sample ID: LCS 240-167942/21-A

Matrix: Water

Analysis Batch: 168396

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.06		ug/L		83	50 - 114
Aroclor-1260	2.50	1.86		ug/L		74	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	71		10 - 114
Tetrachloro-m-xylene	77		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-168026/1-A

Matrix: Water

Analysis Batch: 168211

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 168026

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		02/13/15 11:12	02/17/15 12:38	1
Nickel	0.010	U	0.010	mg/L		02/13/15 11:12	02/17/15 12:38	1
Lead	0.050	U	0.050	mg/L		02/13/15 11:12	02/17/15 12:38	1
Zinc	0.020	U	0.020	mg/L		02/13/15 11:12	02/17/15 12:38	1

Lab Sample ID: LCS 240-168026/2-A

Matrix: Water

Analysis Batch: 168211

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 168026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.189		mg/L		95	85 - 115
Nickel	0.500	0.491		mg/L		98	85 - 115
Lead	0.500	0.474		mg/L		95	85 - 115
Zinc	0.500	0.499		mg/L		100	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-168030/1-A
Matrix: Water
Analysis Batch: 168307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168030

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		02/13/15 13:25	02/17/15 12:07	1

Lab Sample ID: LCS 240-168030/2-A
Matrix: Water
Analysis Batch: 168307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00474		mg/L		95	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-167991/1-A
Matrix: Water
Analysis Batch: 167999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 167991

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		02/13/15 08:50	02/13/15 09:18	1

Lab Sample ID: LCS 240-167991/2-A
Matrix: Water
Analysis Batch: 167999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 167991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	38.7		mg/L		97	78 - 114

Method: 3500-Cr B-2009 - Chromium, Hexxavalent

Lab Sample ID: MB 240-167870/3
Matrix: Water
Analysis Batch: 167870

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0050	U	0.0050	mg/L			02/12/15 11:58	1

Lab Sample ID: LCS 240-167870/4
Matrix: Water
Analysis Batch: 167870

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.290		mg/L		116	80 - 118

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-168250/1

Matrix: Water

Analysis Batch: 168250

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	mg/L	-		02/17/15 10:31	1

Lab Sample ID: LCS 240-168250/2

Matrix: Water

Analysis Batch: 168250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	22.3	20.0		mg/L	-	90	73 - 113

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (10-114)	TCX2 (15-131)
240-47197-1	WT-012607-021115-EE-001	45	60
LCS 240-167942/21-A	Lab Control Sample	71	77
MB 240-167942/20-A	Method Blank	72	84

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

Client Sample ID: WT-012607-021115-EE-001

Lab Sample ID: 240-47197-1

Date Collected: 02/11/15 14:30

Matrix: Water

Date Received: 02/12/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			167942	02/13/15 06:28	CSC	TAL CAN
Total/NA	Analysis	608		1	168396	02/18/15 17:31	HMB	TAL CAN
Total Recoverable	Prep	200.7			168026	02/13/15 11:12	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	168211	02/17/15 14:10	KLC	TAL CAN
Total/NA	Prep	245.1			168030	02/13/15 13:25	ADS	TAL CAN
Total/NA	Analysis	245.1		1	168307	02/17/15 12:42	BW	TAL CAN
Total/NA	Prep	1664A			167991	02/13/15 08:50	LKG	TAL CAN
Total/NA	Analysis	1664A		1	167999	02/13/15 09:18	LKG	TAL CAN
Total/NA	Analysis	3500-Cr B-2009		1	167870	02/12/15 12:02	LCN	TAL CAN
Total/NA	Analysis	SM 2540D		1	168250	02/17/15 10:31	NJE	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: 12607-T01-012, RACER Eckles Rd

TestAmerica Job ID: 240-47197-1

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	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-15 *
Connecticut	State Program	1	PH-0590	12-31-15
Florida	NELAP	4	E87225	06-30-15
Georgia	State Program	4	N/A	06-30-15
Illinois	NELAP	5	200004	07-31-15
Kansas	NELAP	7	E-10336	03-31-15 *
Kentucky (UST)	State Program	4	58	06-30-15
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-15
New Jersey	NELAP	2	OH001	06-30-15
New York	NELAP	2	10975	03-31-15 *
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-15
Texas	NELAP	6		08-31-15
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-47197 Chain of Custody



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO.: PL-13171

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: LAB - 24005880		CRA - 012607-TOIYIS-003		Lab Location: N. Canton, OH		SSOW ID: 12607-TOIYIS-012	
Project Name: RACER Livonia GWP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Rawls Fleisher, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engelen, CRA		Grab (g) or Comp (C)		Other:		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
WT- 012607-021115-EE-001		2/11/15		1430			
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TAT Required in business days (use separate COCs for different TATs):		Total Number of Containers: 6		Notes/ Special Requirements:	
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:		All Samples in Cooler must be on COC			
RELINQUISHED BY: Erik Engelen		RECEIVED BY: J. Fleisher		DATE: 2/11/15	
COMPANY: CRA		COMPANY: TRC		DATE: 2/11/15	
TIME: 1530		TIME: 9:40		TIME: 9:40	
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THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

CRA Form: COC-10A (20110804)

GOLDENROD - Sampling Crew

PINK - Shipper

YELLOW - Receiving Laboratory Copy

WHITE - Fully Executed Copy (CRA)

Distribution:

TestAmerica Canton Sample Receipt Form/Narrative				Login # : <u>7197</u>	
Canton Facility					
Client <u>CRA</u>		Site Name <u>Raca Liviana</u>		Cooler unpacked by: <u>Heather Power</u>	
Cooler Received on <u>2/12/15</u>		Opened on <u>2/12/15</u>			
FedEx: 1 st Grd <u>Exp</u> UPS FAS Stetson		Client Drop Off		TestAmerica Courier Other	
Receipt After-hours: Drop-off Date/Time _____ Storage Location _____					
TestAmerica Cooler # _____		Foam Box <u>Client Cooler</u>		Box Other	
Packing material used: <u>Bubble Wrap</u>		Foam <u>Plastic Bag</u>		None Other	
COOLANT: <u>Wet Ice</u>		Blue Ice Dry Ice Water		None	
1. Cooler temperature upon receipt IR GUN# A (CF +4.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. <u>4.4</u> °C Corrected Cooler Temp. <u>4.9</u> °C IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C IR GUN# 8 (CF -1.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C					
☐ See Multiple Cooler Form					
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA -Were custody seals on the bottle(s)? Yes No					
3. Shippers' packing slip attached to the cooler(s)? Yes No					
4. Did custody papers accompany the sample(s)? Yes No					
5. Were the custody papers relinquished & signed in the appropriate place? Yes No					
6. Was/were the sampler(s) clearly identified on the COC? Yes No					
7. Did all bottles arrive in good condition (Unbroken)? Yes No					
8. Could all bottle labels be reconciled with the COC? Yes No					
9. Were correct bottle(s) used for the test(s) indicated? Yes No					
10. Sufficient quantity received to perform indicated analyses? Yes No					
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# <u>HC425511</u>					
12. Were VOAs on the COC? Yes No					
13. Were air bubbles >6 mm in any VOA vials? Yes No NA					
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No					
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other					
Concerning _____					

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 	Samples processed by: <u>[Signature]</u>
15. SAMPLE CONDITION Sample(s) _____ were received after the recommended holding time had expired. Sample(s) _____ were received in a broken container. Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)	
16. SAMPLE PRESERVATION Sample(s) _____ were further preserved in the laboratory. Time preserved: _____ Preservative(s) added/Lot number(s): _____	

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
WT-012607-021115-EE-001	240-47197-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-012607-021115-EE-001	240-47197-E-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____
WT-012607-021115-EE-001	240-47197-F-1	Amber Glass 1 liter - Sulfuric Acid	_____	_____	_____