



**CONESTOGA-ROVERS
& ASSOCIATES**

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

September 11, 2014

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
(March 2014 through August 2014)
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 March 2014 through August 2014.

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: March 1, 2014 to August 31, 2014
- Dates of Sampling: March 19, 2014; April 16, 2014; May 14, 2014; June 30, 2014; July 9, 2014; and August 20, 2014
- All samples were collected from the effluent sampling port of Tank T12
- Total Monthly Discharges:
 - March 2014: 563,825
 - April 2014: 859,878
 - May 2014: 849,711
 - June 2014: 894,836
 - July 2014: 810,723
 - August 2014: 667,521

Equal
Employment Opportunity
Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN



**CONESTOGA-ROVERS
& ASSOCIATES**

September 11, 2014

Reference No. 012607

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- Total Flow to Date: 155,529,107 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/8/Det.

Encl.

cc: Dave Favero, RACER

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
03/01/14	None	None	On-Site	37,272	
03/02/14	None	None			
03/03/14	None	None			
03/04/14	None	None			
03/05/14	None	None			
03/06/14	None	None			
03/07/14	None	None			
03/08/14	None	None			
03/09/14	None	None			
03/10/14	None	None	On-Site	120	
03/11/14	None	None	On-Site	49,090	
03/12/14	None	None	On-Site	39,118	
03/13/14	None	None	On-Site	38,827	
03/14/14	None	None	On-Site	39,046	
03/15/14	None	None			
03/16/14	None	None			
03/17/14	None	None	On-Site	2,882	
03/18/14	None	None	On-Site	44,733	
03/19/14	None	None	On-site & Sampled	38,747	
03/20/14	None	None	On-Site	38,387	
03/21/14	None	None	On-Site	40,828	
03/22/14	None	None			
03/23/14	None	None			
03/24/14	None	None	On-Site	3,403	
03/25/14	None	None	On-Site	41,389	
03/26/14	None	None	On-Site	43,031	
03/27/14	None	None	On-Site	59,979	
03/28/14	None	None	On-Site	45,399	
03/29/14	None	None			
03/30/14	None	None			
03/31/14	None	None	On-Site	1,573	

Total Monthly Discharge (gal)

563,825

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
04/01/14	None	None	On-Site	47,041	
04/02/14	None	None	On-Site	35,894	
04/03/14	None	None	On-Site	55,052	
04/04/14	None	None			Sytem down - Lamella pump down
04/05/14	None	None			
04/06/14	None	None			
04/07/14	None	None	On-Site	3,906	
04/08/14	None	None	On-Site	54,175	
04/09/14	None	None	On-Site	50,828	
04/10/14	None	None	On-Site	48,339	
04/11/14	None	None	On-Site	52,859	
04/12/14	None	None			
04/13/14	None	None			
04/14/14	None	None	On-Site	925	
04/15/14	None	None	On-Site	55,602	
04/16/14	None	None	On-site & Sampled	42,333	
04/17/14	None	None	On-Site	49,019	
04/18/14	None	None	On-Site	45,506	
04/19/14	None	None			
04/20/14	None	None			
04/21/14	None	None	On-Site	13,016	
04/22/14	None	None	On-Site	48,251	
04/23/14	None	None	On-Site	41,784	
04/24/14	None	None	On-Site	49,126	
04/25/14	None	None	On-Site	51,360	
04/26/14	None	None			
04/27/14	None	None			
04/28/14	None	None	On-Site	2,171	
04/29/14	None	None	On-Site	58,661	
04/30/14	None	None	On-Site	54,030	

Total Monthly Discharge (gal)

859,878

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
05/01/14	None	None	On-Site	28,860	
05/02/14	None	None	On-Site	56,901	
05/03/14	None	None			
05/04/14	None	None			
05/05/14	None	None	On-Site	1,510	
05/06/14	None	None	On-Site	49,428	
05/07/14	None	None	On-Site	55,957	
05/08/14	None	None	On-Site	41,299	
05/09/14	None	None	On-Site	31,442	
05/10/14	None	None			
05/11/14	None	None			
05/12/14	None	None	On-Site	747	
05/13/14	None	None	On-Site	60,746	
05/14/14	None	None	On-site & Sampled	53,268	
05/15/14	None	None	On-Site	43,324	
05/16/14	None	None	On-Site	44,685	
05/17/14	None	None			
05/18/14	None	None			
05/19/14	None	None	On-Site	14,923	
05/20/14	None	None	On-Site	61,694	
05/21/14	None	None	On-Site	50,562	
05/22/14	None	None	On-Site	41,166	
05/23/14	None	None	On-Site	45,556	
05/24/14	None	None			
05/25/14	None	None			
05/26/14	None	None			
05/27/14	None	None	On-Site	1,219	
05/28/14	None	None	On-Site	35,729	
05/29/14	None	None	On-Site	78,181	
05/30/14	None	None	On-Site	52,514	
05/31/14	None	None			

Total Monthly Discharge (gal)

849,711

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
06/01/14	None	None			
06/02/14	None	None	On-Site	1,309	
06/03/14	None	None	On-Site	50,966	
06/04/14	None	None	On-Site	53,471	
06/05/14	None	None	On-Site	56,645	
06/06/14	None	None	On-Site	47,044	
06/07/14	None	None			
06/08/14	None	None			
06/09/14	None	None	On-Site	0	
06/10/14	None	None	On-Site	64,694	
06/11/14	None	None	On-Site	59,627	
06/12/14	None	None	On-Site	32,037	
06/13/14	None	None	On-Site	69,356	
06/14/14	None	None			
06/15/14	None	None			
06/16/14	None	None	On-Site	1,237	
06/17/14	None	None	On-Site	61,041	
06/18/14	None	None	On-Site	34,443	
06/19/14	None	None	On-Site	59,859	
06/20/14	None	None	On-Site	33,353	
06/21/14	None	None			
06/22/14	None	None			
06/23/14	None	None			
06/24/14	None	None			
06/25/14	None	None	On-Site	0	
06/26/14	None	None	On-Site	66,493	
06/27/14	None	None	On-Site	48,806	
06/28/14	None	None	On-Site	46,715	
06/29/14	None	None	On-Site	60,628	
06/30/14	None	None	On-site & Sampled	47,112	

Total Monthly Discharge (gal)

894,836

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
07/01/14	None	None	On-Site	48,262	
07/02/14	None	None	On-Site	49,726	
07/03/14	None	None			
07/04/14	None	None			
07/05/14	None	None			
07/06/14	None	None			
07/07/14	None	None	On-Site	1,079	
07/08/14	None	None	On-Site	49,928	
07/09/14	None	None	On-site & Sampled	49,904	
07/10/14	None	None	On-Site	52,374	
07/11/14	None	None	On-Site	57,104	
07/12/14	None	None			
07/13/14	None	None			
07/14/14	None	None	On-Site	930	
07/15/14	None	None	On-Site	55,718	
07/16/14	None	None	On-Site	57,816	
07/17/14	None	None	On-Site	54,195	
07/18/14	None	None	On-Site	54,587	
07/19/14	None	None			
07/20/14	None	None			
07/21/14	None	None	On-Site	1,990	
07/22/14	None	None	On-Site	57,532	
07/23/14	None	None	On-Site	50,371	
07/24/14	None	None	On-Site	51,722	
07/25/14	None	None	On-Site	52,697	
07/26/14	None	None			
07/27/14	None	None			
07/28/14	None	None	On-Site	634	
07/29/14	None	None	On-Site	64,154	
07/30/14	None	None			
07/31/14	None	None			

Total Monthly Discharge (gal)

810,723

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

Date	Inspection Visits	Changes or Replacements of Treatment System	Samples Taken	Quantities of Groundwater Discharged / Day - GAL	Notes
08/01/14	None	None			
08/02/14	None	None			
08/03/14	None	None			
08/04/14	None	None	On-Site	1,791	
08/05/14	None	None	On-Site	56,764	
08/06/14	None	None	On-Site	48,703	
08/07/14	None	None	On-Site	42,436	
08/08/14	None	None	On-Site	41,960	
08/09/14	None	None			
08/10/14	None	None			
08/11/14	None	None	On-Site	817	
08/12/14	None	None			System down - power outage
08/13/14	None	None			System down - power outage
08/14/14	None	None	On-Site	10,002	
08/15/14	None	None	On-Site	60,698	
08/16/14	None	None			
08/17/14	None	None			
08/18/14	None	None	On-Site	1,808	
08/19/14	None	None	On-Site	71,647	
08/20/14	None	None	On-site & Sampled	48,689	
08/21/14	None	None	On-Site	62,118	
08/22/14	None	None	On-Site	51,516	
08/23/14	None	None			
08/24/14	None	None			
08/25/14	None	None	On-Site	814	
08/26/14	None	None			System down - power outage
08/27/14	None	None	On-Site	67,830	
08/28/14	None	None	On-Site	53,999	
08/29/14	None	None	On-Site	45,929	
08/30/14	None	None			
08/31/14	None	None			

Total Monthly Discharge (gal)

667,521

SECTION D: REPORTING REQUIREMENTS/b) iii)
12950 Eckles Road
Livonia, MI 48150
Permit No.: SD6-94508
Maintenance Log- ISCO Sample Analyses - March 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
3/1/2014	3/1/2014	9.14	0.21	0.00	0.25	
3/2/2014	3/2/2014					
3/3/2014	3/3/2014					
3/4/2014	3/4/2014					
3/5/2014	3/5/2014					
3/6/2014	3/6/2014					
3/7/2014	3/7/2014					
3/8/2014	3/8/2014					
3/9/2014	3/9/2014					
3/10/2014	3/10/2014	7.96	0.10	0.00	0.10	
3/11/2014	3/11/2014	8.80	0.13	0.00	0.17	
3/12/2014	3/12/2014	8.79	0.15	0.00	0.15	
3/13/2014	3/13/2014	8.77	0.09	0.00	0.20	
3/14/2014	3/14/2014	8.74	0.15	0.00	0.50	
3/15/2014	3/15/2014					
3/16/2014	3/16/2014					
3/17/2014	3/17/2014	9.10	0.09	0.00	0.20	
3/18/2014	3/18/2014	9.40	0.09	0.00	0.20	
3/19/2014	3/19/2014	9.41	0.11	0.00	0.15	
3/20/2014	3/20/2014	9.35	0.15	0.00	0.15	
3/21/2014	3/21/2014	9.32	0.09	0.00	0.10	
3/22/2014	3/22/2014					
3/23/2014	3/23/2014					
3/24/2014	3/24/2014	8.76	0.22	0.00	0.20	
3/25/2014	3/25/2014	9.11	0.10	0.00	0.15	
3/26/2014	3/26/2014	9.11	0.14	0.00	0.10	
3/27/2014	3/27/2014	9.05	0.11	0.00	0.15	
3/28/2014	3/28/2014	9.10	0.12	0.00	0.20	
3/29/2014	3/29/2014					
3/30/2014	3/30/2014					
3/31/2014	3/31/2014	8.48	0.11	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 - April 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
4/1/2014	4/1/2014	9.21	0.12	0.00	0.30	
4/2/2014	4/2/2014	9.19	0.13	0.00	0.20	
4/3/2014	4/3/2014	9.49	0.11	0.00	0.10	
4/4/2014	4/4/2014					
4/5/2014	4/5/2014					
4/6/2014	4/6/2014					
4/7/2014	4/7/2014	8.43	0.10	0.00	0.05	
4/8/2014	4/8/2014	9.40	0.08	0.00	0.05	
4/9/2014	4/9/2014	9.47	0.05	0.00	0.00	
4/10/2014	4/10/2014	9.25	0.13	0.00	0.25	
4/11/2014	4/11/2014	9.32	0.10	0.00	0.25	
4/12/2014	4/12/2014					
4/13/2014	4/13/2014					
4/14/2014	4/14/2014	8.44	0.20	0.00	0.20	
4/15/2014	4/15/2014	9.19	0.14	0.00	0.15	
4/16/2014	4/16/2014	9.23	0.13	0.00	0.35	
4/17/2014	4/17/2014	9.13	0.13	0.00	0.25	
4/18/2014	4/18/2014	9.11	0.11	0.00	0.20	
4/19/2014	4/19/2014					
4/20/2014	4/20/2014					
4/21/2014	4/21/2014	8.72	0.14	0.00	0.20	
4/22/2014	4/22/2014	9.47	0.08	0.00	0.10	
4/23/2014	4/23/2014	9.46	0.09	0.00	0.10	
4/24/2014	4/24/2014	9.40	0.11	0.00	0.10	
4/25/2014	4/25/2014	9.38	0.18	0.00	0.15	
4/26/2014	4/26/2014					
4/27/2014	4/27/2014					
4/28/2014	4/28/2014	8.63	0.15	0.00	0.05	
4/29/2014	4/29/2014	9.31	0.13	0.00	0.15	
4/30/2014	4/30/2014	9.29	0.12	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 - May 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
5/1/2014	5/1/2014	9.30	0.16	0.00	0.10	
5/2/2014	5/2/2014	9.30	0.19	0.00	0.20	
5/3/2014	5/3/2014					
5/4/2014	5/4/2014					
5/5/2014	5/5/2014	8.63	0.20	0.00	0.05	
5/6/2014	5/6/2014	9.25	0.15	0.00	0.00	
5/7/2014	5/7/2014	9.23	0.22	0.00	0.05	
5/8/2014	5/8/2014	9.25	0.29	0.00	0.05	
5/9/2014	5/9/2014	9.36	0.20	0.00	0.05	
5/10/2014	5/10/2014					
5/11/2014	5/11/2014					
5/12/2014	5/12/2014	8.19	0.14	0.00	0.05	
5/13/2014	5/13/2014	9.44	0.10	0.00	0.05	
5/14/2014	5/14/2014	9.40	0.10	0.00	0.05	
5/15/2014	5/15/2014	9.41	0.07	0.00	0.25	
5/16/2014	5/16/2014	9.36	0.11	0.00	0.05	
5/17/2014	5/17/2014					
5/18/2014	5/18/2014					
5/19/2014	5/19/2014	8.84	0.07	0.00	0.05	
5/20/2014	5/20/2014	9.49	0.07	0.00	0.05	
5/21/2014	5/21/2014	9.45				
5/22/2014	5/22/2014	9.47	0.09	0.00	0.15	
5/23/2014	5/23/2014	9.49	0.07	0.00	0.05	
5/24/2014	5/24/2014					
5/25/2014	5/25/2014					
5/26/2014	5/26/2014					
5/27/2014	5/27/2014	8.65	0.10	0.00	0.10	
5/28/2014	5/28/2014	9.56	0.08	0.00	0.05	
5/29/2014	5/29/2014	9.48	0.09	0.00	0.10	
5/30/2014	5/30/2014	9.37	0.16	0.00	0.10	
5/31/2014	5/31/2014					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - June 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
6/1/2014	6/1/2014					
6/2/2014	6/2/2014	8.53	0.10	0.00	0.05	
6/3/2014	6/3/2014	9.43	0.08	0.00	0.05	
6/4/2014	6/4/2014	9.42	0.10	0.00	0.10	
6/5/2014	6/5/2014	9.40	0.09	0.00	0.05	
6/6/2014	6/6/2014	9.56	0.24	0.00	0.15	
6/7/2014	6/7/2014					
6/8/2014	6/8/2014					
6/9/2014	6/9/2014	8.11	0.13	0.00	0.20	
6/10/2014	6/10/2014	9.18	0.17	0.00	0.20	
6/11/2014	6/11/2014	9.32	0.15	0.00	0.25	
6/12/2014	6/12/2014	8.97	0.09	0.00	0.05	
6/13/2014	6/13/2014	8.99	0.10	0.00	0.10	
6/14/2014	6/14/2014					
6/15/2014	6/15/2014					
6/16/2014	6/16/2014	8.14	0.13	0.00	0.00	
6/17/2014	6/17/2014	8.99	0.06	0.00	0.00	
6/18/2014	6/18/2014	8.57	0.14	0.00	0.00	
6/19/2014	6/19/2014	9.31	0.12	0.00	0.05	
6/20/2014	6/20/2014					
6/21/2014	6/21/2014					
6/22/2014	6/22/2014					
6/23/2014	6/23/2014					
6/24/2014	6/24/2014					
6/25/2014	6/25/2014	8.51	0.06	0.00	0.20	
6/26/2014	6/26/2014	9.32	0.05	0.00	0.20	
6/27/2014	6/27/2014	9.39	0.05	0.00	0.20	
6/28/2014	6/28/2014	9.53	0.05	0.00	0.05	
6/29/2014	6/29/2014	9.53	0.06	0.00	0.05	
6/30/2014	6/30/2014	9.36	0.06	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 - July 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
7/1/2014	7/1/2014	9.22	0.10	0.00	0.15	
7/2/2014	7/2/2014	9.20	0.07	0.00	0.10	
7/3/2014	7/3/2014					
7/4/2014	7/4/2014					
7/5/2014	7/5/2014					
7/6/2014	7/6/2014					
7/7/2014	7/7/2014	8.90	0.13	0.00	0.25	
7/8/2014	7/8/2014	9.37	0.09	0.00	0.10	
7/9/2014	7/9/2014	9.40	0.09	0.00	0.20	
7/10/2014	7/10/2014	9.36	0.12	0.00	0.15	
7/11/2014	7/11/2014	9.36	0.08	0.00	0.15	
7/12/2014	7/12/2014					
7/13/2014	7/13/2014					
7/14/2014	7/14/2014	9.20	0.09	0.00	0.20	
7/15/2014	7/15/2014	9.67	0.06	0.00	0.10	
7/16/2014	7/16/2014	9.60	0.10	0.00	0.10	
7/17/2014	7/17/2014	9.70	0.08	0.00	0.05	
7/18/2014	7/18/2014	9.51	0.06	0.00	0.05	
7/19/2014	7/19/2014					
7/20/2014	7/20/2014					
7/21/2014	7/21/2014	9.34	0.05	0.00	0.05	
7/22/2014	7/22/2014	9.44	0.11	0.00	0.20	
7/23/2014	7/23/2014	9.49	0.04	0.00	0.20	
7/24/2014	7/24/2014	9.39	0.21	0.00	0.20	
7/25/2014	7/25/2014	9.37	0.20	0.00	0.20	
7/26/2014	7/26/2014					
7/27/2014	7/27/2014					
7/28/2014	7/28/2014	8.70	0.10	0.00	0.60	
7/29/2014	7/29/2014	9.30	0.16	0.00	0.25	
7/30/2014	7/30/2014					
7/31/2014	7/31/2014					

SECTION D: REPORTING REQUIREMENTS/b) iii)**12950 Eckles Road****Livonia, MI 48150****Permit No.: SD6-94508****Maintenance Log- ISCO Sample Analyses - August 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
8/1/2014	8/1/2014					
8/2/2014	8/2/2014					
8/3/2014	8/3/2014					
8/4/2014	8/4/2014	8.66	0.10	0.00	0.15	
8/5/2014	8/5/2014	9.34	0.17	0.00	0.15	
8/6/2014	8/6/2014	9.39	0.10	0.00	0.05	
8/7/2014	8/7/2014	9.34	0.14	0.00	0.05	
8/8/2014	8/8/2014	9.33	0.11	0.00	0.05	
8/9/2014	8/9/2014					
8/10/2014	8/10/2014					
8/11/2014	8/11/2014	8.27	0.11	0.00	0.05	
8/12/2014	8/12/2014					System down - power outage
8/13/2014	8/13/2014					System down - power outage
8/14/2014	8/14/2014	8.80	0.07	0.00	0.10	
8/15/2014	8/15/2014	9.37	0.20	0.00	0.05	
8/16/2014	8/16/2014					
8/17/2014	8/17/2014					
8/18/2014	8/18/2014	8.74	0.20	0.00	0.05	
8/19/2014	8/19/2014	9.33	0.20	0.00	0.08	
8/20/2014	8/20/2014	9.28	0.07	0.00	0.05	
8/21/2014	8/21/2014	9.28	0.01	0.00	0.05	
8/22/2014	8/22/2014	9.28	0.06	0.00	0.05	
8/23/2014	8/23/2014					
8/24/2014	8/24/2014					
8/25/2014	8/25/2014	8.65	0.06	0.00	0.05	
8/26/2014	8/26/2014					System down - power outage
8/27/2014	8/27/2014	9.11	0.06	0.00	0.05	
8/28/2014	8/28/2014	9.57	0.04	0.00	0.10	
8/29/2014	8/29/2014	9.47	0.05	0.00	0.05	
8/30/2014	8/30/2014					
8/31/2014	8/31/2014					

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: 240-35232-1

Client Project/Site: 12607-T01Y14-012, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

3/31/2014 12:06:40 PM

Denise Heckler, Project Manager II

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Job ID: 240-35232-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y14-012, RACER Eckles Rd

Report Number: 240-35232-1

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 03/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 03/21/2014 and analyzed on 03/26/2014.

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.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Job ID: 240-35232-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

The samples were prepared on 03/21/2014 and analyzed on 03/24/2014.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 03/21/2014 and analyzed on 03/24/2014.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 03/28/2014.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 03/21/2014.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-031914-EE-001 (240-35232-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 03/20/2014.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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
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-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-35232-1	WT-12607-031914-EE-001	Water	03/19/14 16:30	03/20/14 09:50

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Client Sample ID: WT-12607-031914-EE-001

Lab Sample ID: 240-35232-1

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	0.15		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	9.0		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-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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

Client Sample ID: WT-12607-031914-EE-001

Date Collected: 03/19/14 16:30

Date Received: 03/20/14 09:50

Lab Sample ID: 240-35232-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1221	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1232	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1242	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1248	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1254	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Aroclor-1260	0.095	U	0.095	ug/L		03/21/14 08:42	03/26/14 16:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		10 - 114			03/21/14 08:42	03/26/14 16:04	1
Tetrachloro-m-xylene	100		15 - 131			03/21/14 08:42	03/26/14 16:04	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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

Client Sample ID: WT-12607-031914-EE-001

Date Collected: 03/19/14 16:30

Date Received: 03/20/14 09:50

Lab Sample ID: 240-35232-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.20		0.050	mg/L		03/21/14 07:58	03/24/14 12:07	1
Nickel	0.15		0.010	mg/L		03/21/14 07:58	03/24/14 12:07	1
Lead	0.050	U	0.050	mg/L		03/21/14 07:58	03/24/14 12:07	1
Zinc	0.020	U	0.020	mg/L		03/21/14 07:58	03/24/14 12:07	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-031914-EE-001

Date Collected: 03/19/14 16:30

Date Received: 03/20/14 09:50

Lab Sample ID: 240-35232-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		03/21/14 11:00	03/24/14 15:07	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

General Chemistry

Client Sample ID: WT-12607-031914-EE-001

Date Collected: 03/19/14 16:30

Date Received: 03/20/14 09:50

Lab Sample ID: 240-35232-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		03/28/14 08:11	03/28/14 08:11	1
Total Suspended Solids	9.0		4.0	mg/L			03/21/14 09:17	1
Cr (VI)	0.0050	U	0.0050	mg/L			03/20/14 11:51	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

GC Semi VOA

Prep Batch: 123455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	3520C	
LCS 240-123455/13-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-123455/12-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 123754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-123455/13-A	Lab Control Sample	Total/NA	Water	608	123455
MB 240-123455/12-A	Method Blank	Total/NA	Water	608	123455

Analysis Batch: 124028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	608	123455

Metals

Prep Batch: 123438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total Recoverable	Water	200.7	
LCS 240-123438/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-123438/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 123439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	245.1	
LCS 240-123439/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-123439/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 123688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total Recoverable	Water	200.7 Rev 4.4	123438
LCS 240-123438/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	123438
MB 240-123438/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	123438

Analysis Batch: 123781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	245.1	123439
LCS 240-123439/2-A	Lab Control Sample	Total/NA	Water	245.1	123439
MB 240-123439/1-A	Method Blank	Total/NA	Water	245.1	123439

General Chemistry

Analysis Batch: 123266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-123266/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-123266/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 123471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

General Chemistry (Continued)

Analysis Batch: 123471 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-123471/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-123471/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 124349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	1664A	
LCS 240-124349/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-124349/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 124384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-35232-1	WT-12607-031914-EE-001	Total/NA	Water	1664A	124349
LCS 240-124349/2-A	Lab Control Sample	Total/NA	Water	1664A	124349
MB 240-124349/1-A	Method Blank	Total/NA	Water	1664A	124349

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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

Lab Sample ID: MB 240-123455/12-A

Matrix: Water

Analysis Batch: 123754

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 123455

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1221	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1232	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1242	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1248	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1254	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1
Aroclor-1260	0.10	U	0.10	ug/L		03/21/14 08:42	03/24/14 17:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		10 - 114	03/21/14 08:42	03/24/14 17:07	1
Tetrachloro-m-xylene	103		15 - 131	03/21/14 08:42	03/24/14 17:07	1

Lab Sample ID: LCS 240-123455/13-A

Matrix: Water

Analysis Batch: 123754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 123455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.31		ug/L		92	50 - 114
Aroclor-1260	2.50	2.35		ug/L		94	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	91		10 - 114
Tetrachloro-m-xylene	90		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-123438/1-A

Matrix: Water

Analysis Batch: 123688

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 123438

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		03/21/14 07:58	03/24/14 11:06	1
Nickel	0.010	U	0.010	mg/L		03/21/14 07:58	03/24/14 11:06	1
Lead	0.050	U	0.050	mg/L		03/21/14 07:58	03/24/14 11:06	1
Zinc	0.020	U	0.020	mg/L		03/21/14 07:58	03/24/14 11:06	1

Lab Sample ID: LCS 240-123438/2-A

Matrix: Water

Analysis Batch: 123688

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 123438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.196		mg/L		98	85 - 115
Nickel	0.500	0.508		mg/L		102	85 - 115
Lead	0.500	0.493		mg/L		99	85 - 115
Zinc	0.500	0.516		mg/L		103	85 - 115

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QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-123439/1-A
Matrix: Water
Analysis Batch: 123781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123439

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		03/21/14 11:00	03/24/14 14:48	1

Lab Sample ID: LCS 240-123439/2-A
Matrix: Water
Analysis Batch: 123781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123439

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 240-124349/1-A
Matrix: Water
Analysis Batch: 124384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124349

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		03/28/14 08:11	03/28/14 08:11	1

Lab Sample ID: LCS 240-124349/2-A
Matrix: Water
Analysis Batch: 124384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124349

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	36.1		mg/L		90	78 - 114

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

Lab Sample ID: MB 240-123471/1
Matrix: Water
Analysis Batch: 123471

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			03/21/14 09:17	1

Lab Sample ID: LCS 240-123471/2
Matrix: Water
Analysis Batch: 123471

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	46.3	36.0		mg/L		78	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-123266/3

Matrix: Water

Analysis Batch: 123266

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			03/20/14 08:25	1

Lab Sample ID: LCS 240-123266/4

Matrix: Water

Analysis Batch: 123266

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	0.242		mg/L		97	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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)
240-35232-1	WT-12607-031914-EE-001	88	100
LCS 240-123455/13-A	Lab Control Sample	91	90
MB 240-123455/12-A	Method Blank	101	103

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

Client Sample ID: WT-12607-031914-EE-001

Lab Sample ID: 240-35232-1

Date Collected: 03/19/14 16:30

Matrix: Water

Date Received: 03/20/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			123455	03/21/14 08:42	SDE	TAL CAN
Total/NA	Analysis	608		1	124028	03/26/14 16:04	LSH	TAL CAN
Total Recoverable	Prep	200.7			123438	03/21/14 07:58	LPM	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	123688	03/24/14 12:07	KLC	TAL CAN
Total/NA	Prep	245.1			123439	03/21/14 11:00	LPM	TAL CAN
Total/NA	Analysis	245.1		1	123781	03/24/14 15:07	AMM2	TAL CAN
Total/NA	Analysis	1664A		1	124384	03/28/14 08:11	BLW	TAL CAN
Total/NA	Prep	1664A			124349	03/28/14 08:11	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	123471	03/21/14 09:17	LCN	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	123266	03/20/14 11:51	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-T01Y14-012, RACER Eckles Rd

TestAmerica Job ID: 240-35232-1

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

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-35232 Chain of Custody



CHAIN OF CUSTODY RECORD

114496 Sheldon Road, Suite #200, Plymouth, Michigan 48170

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

COC NO: 21-13868

PAGE 1 OF 2

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-T01Y14-003		Laboratory Name: Test America		Lab Location: N. Canton, MI		SSOW ID: 12607-T01Y14-003	
Project Name: RACER Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		Carrier:	
Chemistry Contact: Rawl Fleisher, CRA		Grab (g) or Comp (c)		Unpreserved		Airbill No:	
Sampler(s): Erik Engnell, CRA		Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		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-12607-031914-EE-001		3/19/14		1630			
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THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK - Shipper

GOLDENROD -- Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative

Login #: 35232

Canton Facility

Client CR4 Site Name _____ Cooler unpacked by: CL

Cooler Received on 3/20/14 Opened on 3/20/14

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 +0 °C) Observed Cooler Temp. <u>4.2</u> °C	Corrected Cooler Temp. <u>4.2</u> °C	☐ See Multiple Cooler Form
IR GUN# 4 (CF -1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5 (CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8 (CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No

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

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

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

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

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

6. 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# HC391902

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:

JP

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-12607-031914-EE-001	240-35232-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-031914-EE-001	240-35232-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-031914-EE-001	240-35232-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: 240-36220-1

Client Project/Site: 12607-T01Y14, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

4/25/2014 2:32:48 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Job ID: 240-36220-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y14, RACER Eckles Rd

Report Number: 240-36220-1

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

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

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

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

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

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

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

RECEIPT

The samples were received on 04/17/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 04/18/2014 and analyzed on 04/21/2014.

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 (127052).

The opening and closing continuing calibration verification (CCV) associated with sample: WT-12607-041614-EE-001 (240-36220-1) recovered above the upper control limit. The sample was non-detect for the affected analytes; therefore, the data has been reported.

No difficulties were encountered during the PCBs analysis.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Job ID: 240-36220-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 04/18/2014 and analyzed on 04/21/2014.

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 difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 04/18/2014 and analyzed on 04/22/2014.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 04/24/2014.

No difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 04/18/2014.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-041614-EE-001 (240-36220-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 04/17/2014.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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
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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36220-1	WT-12607-041614-EE-001	Water	04/16/14 14:00	04/17/14 09:15

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Client Sample ID: WT-12607-041614-EE-001

Lab Sample ID: 240-36220-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.64		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.43		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	42		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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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

Client Sample ID: WT-12607-041614-EE-001

Date Collected: 04/16/14 14:00

Date Received: 04/17/14 09:15

Lab Sample ID: 240-36220-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1221	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1232	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1242	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1248	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1254	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Aroclor-1260	0.095	U	0.095	ug/L		04/18/14 10:04	04/21/14 11:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		10 - 114			04/18/14 10:04	04/21/14 11:17	1
Tetrachloro-m-xylene	79		15 - 131			04/18/14 10:04	04/21/14 11:17	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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

Client Sample ID: WT-12607-041614-EE-001

Date Collected: 04/16/14 14:00

Date Received: 04/17/14 09:15

Lab Sample ID: 240-36220-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.64		0.050	mg/L		04/18/14 10:07	04/21/14 15:17	1
Nickel	0.43		0.010	mg/L		04/18/14 10:07	04/21/14 15:17	1
Lead	0.050	U	0.050	mg/L		04/18/14 10:07	04/21/14 15:17	1
Zinc	0.020	U	0.020	mg/L		04/18/14 10:07	04/21/14 15:17	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-041614-EE-001

Date Collected: 04/16/14 14:00

Date Received: 04/17/14 09:15

Lab Sample ID: 240-36220-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		04/18/14 15:20	04/22/14 10:11	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

General Chemistry

Client Sample ID: WT-12607-041614-EE-001

Date Collected: 04/16/14 14:00

Date Received: 04/17/14 09:15

Lab Sample ID: 240-36220-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		04/24/14 08:09	04/24/14 08:09	1
Total Suspended Solids	42		4.0	mg/L			04/18/14 08:54	1
Cr (VI)	0.0050	U	0.0050	mg/L			04/17/14 11:08	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

GC Semi VOA

Prep Batch: 127052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	3510C	
LCS 240-127052/4-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-127052/3-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 127249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	608	127052
LCS 240-127052/4-A	Lab Control Sample	Total/NA	Water	608	127052
MB 240-127052/3-A	Method Blank	Total/NA	Water	608	127052

Metals

Prep Batch: 127051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	245.1	
LCS 240-127051/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-127051/1-A	Method Blank	Total/NA	Water	245.1	

Prep Batch: 127055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total Recoverable	Water	200.7	
LCS 240-127055/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-127055/1-A	Method Blank	Total Recoverable	Water	200.7	

Analysis Batch: 127261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total Recoverable	Water	200.7 Rev 4.4	127055
LCS 240-127055/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	127055
MB 240-127055/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	127055

Analysis Batch: 127474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	245.1	127051
LCS 240-127051/2-A	Lab Control Sample	Total/NA	Water	245.1	127051
MB 240-127051/1-A	Method Blank	Total/NA	Water	245.1	127051

General Chemistry

Analysis Batch: 126884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-126884/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-126884/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 127018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	SM 2540D	
LCS 240-127018/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-127018/1	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

General Chemistry (Continued)

Prep Batch: 127697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	1664A	
LCS 240-127697/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-127697/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 127730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-36220-1	WT-12607-041614-EE-001	Total/NA	Water	1664A	127697
LCS 240-127697/2-A	Lab Control Sample	Total/NA	Water	1664A	127697
MB 240-127697/1-A	Method Blank	Total/NA	Water	1664A	127697

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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

Lab Sample ID: MB 240-127052/3-A

Matrix: Water

Analysis Batch: 127249

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127052

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1221	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1232	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1242	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1248	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1254	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1
Aroclor-1260	0.10	U	0.10	ug/L		04/18/14 10:04	04/21/14 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 114	04/18/14 10:04	04/21/14 11:45	1
Tetrachloro-m-xylene	97		15 - 131	04/18/14 10:04	04/21/14 11:45	1

Lab Sample ID: LCS 240-127052/4-A

Matrix: Water

Analysis Batch: 127249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.60		ug/L		104	50 - 114
Aroclor-1260	2.50	2.54		ug/L		102	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	100		10 - 114
Tetrachloro-m-xylene	90		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-127055/1-A

Matrix: Water

Analysis Batch: 127261

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 127055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		04/18/14 10:07	04/21/14 13:53	1
Nickel	0.010	U	0.010	mg/L		04/18/14 10:07	04/21/14 13:53	1
Lead	0.050	U	0.050	mg/L		04/18/14 10:07	04/21/14 13:53	1
Zinc	0.020	U	0.020	mg/L		04/18/14 10:07	04/21/14 13:53	1

Lab Sample ID: LCS 240-127055/2-A

Matrix: Water

Analysis Batch: 127261

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 127055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.194		mg/L		97	85 - 115
Nickel	0.500	0.497		mg/L		99	85 - 115
Lead	0.500	0.490		mg/L		98	85 - 115
Zinc	0.500	0.510		mg/L		102	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-127051/1-A
Matrix: Water
Analysis Batch: 127474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127051

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		04/18/14 15:20	04/22/14 09:48	1

Lab Sample ID: LCS 240-127051/2-A
Matrix: Water
Analysis Batch: 127474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00493		mg/L		99	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-127697/1-A
Matrix: Water
Analysis Batch: 127730

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127697

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		04/24/14 08:09	04/24/14 08:09	1

Lab Sample ID: LCS 240-127697/2-A
Matrix: Water
Analysis Batch: 127730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127697

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 240-127018/1
Matrix: Water
Analysis Batch: 127018

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			04/18/14 08:54	1

Lab Sample ID: LCS 240-127018/2
Matrix: Water
Analysis Batch: 127018

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	46.3	36.0		mg/L		78	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-126884/3

Matrix: Water

Analysis Batch: 126884

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			04/17/14 11:08	1

Lab Sample ID: LCS 240-126884/4

Matrix: Water

Analysis Batch: 126884

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	0.252		mg/L		101	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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)
240-36220-1	WT-12607-041614-EE-001	63	79
LCS 240-127052/4-A	Lab Control Sample	100	90
MB 240-127052/3-A	Method Blank	67	97

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

Client Sample ID: WT-12607-041614-EE-001

Lab Sample ID: 240-36220-1

Date Collected: 04/16/14 14:00

Matrix: Water

Date Received: 04/17/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			127052	04/18/14 10:04	MPM	TAL CAN
Total/NA	Analysis	608		1	127249	04/21/14 11:17	LSH	TAL CAN
Total Recoverable	Prep	200.7			127055	04/18/14 10:07	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	127261	04/21/14 15:17	KLC	TAL CAN
Total/NA	Prep	245.1			127051	04/18/14 15:20	ADS	TAL CAN
Total/NA	Analysis	245.1		1	127474	04/22/14 10:11	AMM2	TAL CAN
Total/NA	Analysis	1664A		1	127730	04/24/14 08:09	BLW	TAL CAN
Total/NA	Prep	1664A			127697	04/24/14 08:09	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	127018	04/18/14 08:54	AS	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	126884	04/17/14 11:08	WAL	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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-36220-1

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

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

TestAmerica

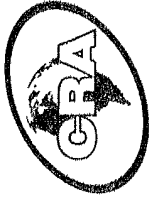
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-36220 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- 11372

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 12607-TOY14-003		Laboratory Name: Test America		Lab Location: N. Canton, OH		SSOW ID: 12607-TOY14-012	
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: Rawa Fleisher, CRA		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): Erik Engnell		Matrix Code		EnCores 3x5-g, 1x25-g		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
1 WT-12607-041614-EC-001		4/16/14		1400			
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Total Number of Containers: 1

Notes/ Special Requirements:

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☒ 2 Week ☐ Other: STD

RELIQUISHED BY: Erik Engnell

DATE: 4/16/14

COMPANY: CRA

RECEIVED BY: Ryan Rana

DATE: 4/17/14

COMPANY: Eberly Test An.

TIME: 1530

TIME: 915

4/25/2014

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

Distribution:

WHITE -- Fully Executed Copy (CRA)

YELLOW -- Receiving Laboratory Copy

PINK -- Shipper

GOLDENROD -- Sampling Crew

CRA Form: COC-10A (20110804)

TestAmerica Canton Sample Receipt Form/Narrative

Login #: 30220

Canton Facility

Client CRA PALGR Livonia 6w7P Site Name

Cooler unpacked by:

Cooler Received on 4-17-14 Opened on 4-17-14

Rye Rats

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 +0 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.2 °C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

☐ See Multiple Cooler Form

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

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

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

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

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

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

6. 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# HC391902

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:

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>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-12607-041614-EE-001	240-36220-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-041614-EE-001	240-36220-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-041614-EE-001	240-36220-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: 240-37367-1

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:

5/25/2014 4:58:24 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

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

TestAmerica Job ID: 240-37367-1

Job ID: 240-37367-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01-012, RACER Eckles Rd

Report Number: 240-37367-1

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

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

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

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

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

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

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

RECEIPT

The samples were received on 05/15/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 05/16/2014 and analyzed on 05/19/2014.

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.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 05/16/2014 and analyzed on 05/19/2014 and 05/20/2014.

Case Narrative

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

TestAmerica Job ID: 240-37367-1

Job ID: 240-37367-1 (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 difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

MERCURY

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 05/16/2014 and analyzed on 05/19/2014.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 05/22/2014.

HEM failed the recovery criteria low for the MS of sample WT-12607-051414-EE-001MS (240-37367-1) in batch 240-131716.

No other difficulties were encountered during the HEM analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 05/19/2014.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample WT-12607-051414-EE-001 (240-37367-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 05/15/2014.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

Definitions/Glossary

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

TestAmerica Job ID: 240-37367-1

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
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: 240-37367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-37367-1	WT-12607-051414-EE-001	Water	05/14/14 16:30	05/15/14 09:30

Detection Summary

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

TestAmerica Job ID: 240-37367-1

Client Sample ID: WT-12607-051414-EE-001

Lab Sample ID: 240-37367-1

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	0.12		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	11		4.0	mg/L	1		SM 2540D	Recoverable Total/NA
Cr (VI)	0.042		0.0050	mg/L	1		SM 3500 CR D	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: 240-37367-1

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: 240-37367-1

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

Client Sample ID: WT-12607-051414-EE-001

Date Collected: 05/14/14 16:30

Date Received: 05/15/14 09:30

Lab Sample ID: 240-37367-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1221	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1232	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1242	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1248	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1254	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Aroclor-1260	0.095	U	0.095	ug/L		05/16/14 12:32	05/19/14 08:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		10 - 114			05/16/14 12:32	05/19/14 08:57	1
Tetrachloro-m-xylene	62		15 - 131			05/16/14 12:32	05/19/14 08:57	1

Client Sample Results

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

TestAmerica Job ID: 240-37367-1

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

Client Sample ID: WT-12607-051414-EE-001

Date Collected: 05/14/14 16:30

Date Received: 05/15/14 09:30

Lab Sample ID: 240-37367-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.11		0.050	mg/L		05/16/14 08:35	05/20/14 10:49	1
Nickel	0.12		0.010	mg/L		05/16/14 08:35	05/19/14 14:09	1
Lead	0.050	U	0.050	mg/L		05/16/14 08:35	05/19/14 14:09	1
Zinc	0.020	U	0.020	mg/L		05/16/14 08:35	05/19/14 14:09	1

Client Sample Results

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

TestAmerica Job ID: 240-37367-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-051414-EE-001

Date Collected: 05/14/14 16:30

Date Received: 05/15/14 09:30

Lab Sample ID: 240-37367-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		05/16/14 13:45	05/19/14 14:19	1

Client Sample Results

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

TestAmerica Job ID: 240-37367-1

General Chemistry

Client Sample ID: WT-12607-051414-EE-001

Date Collected: 05/14/14 16:30

Date Received: 05/15/14 09:30

Lab Sample ID: 240-37367-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		05/22/14 08:36	05/22/14 10:17	1
Total Suspended Solids	11		4.0	mg/L			05/19/14 08:54	1
Cr (VI)	0.042		0.0050	mg/L			05/15/14 10:05	1

QC Association Summary

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

TestAmerica Job ID: 240-37367-1

GC Semi VOA

Prep Batch: 131003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	3520C	
LCS 240-131003/8-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-131003/7-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 131104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	608	131003
LCS 240-131003/8-A	Lab Control Sample	Total/NA	Water	608	131003
MB 240-131003/7-A	Method Blank	Total/NA	Water	608	131003

Metals

Prep Batch: 130930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total Recoverable	Water	200.7	
LCS 240-130930/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-130930/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 130932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	245.1	
LCS 240-130932/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-130932/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 131273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total Recoverable	Water	200.7 Rev 4.4	130930
LCS 240-130930/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	130930
MB 240-130930/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	130930

Analysis Batch: 131337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	245.1	130932
LCS 240-130932/2-A	Lab Control Sample	Total/NA	Water	245.1	130932
MB 240-130932/1-A	Method Blank	Total/NA	Water	245.1	130932

Analysis Batch: 131356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total Recoverable	Water	200.7 Rev 4.4	130930

General Chemistry

Analysis Batch: 130787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-130787/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-130787/3	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: 240-37367-1

General Chemistry (Continued)

Analysis Batch: 131148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	SM 2540D	
LCS 240-131148/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-131148/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 131681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	1664A	
240-37367-1 MS	WT-12607-051414-EE-001	Total/NA	Water	1664A	
LCS 240-131681/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-131681/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 131716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-37367-1	WT-12607-051414-EE-001	Total/NA	Water	1664A	131681
240-37367-1 MS	WT-12607-051414-EE-001	Total/NA	Water	1664A	131681
LCS 240-131681/2-A	Lab Control Sample	Total/NA	Water	1664A	131681
MB 240-131681/1-A	Method Blank	Total/NA	Water	1664A	131681

QC Sample Results

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

TestAmerica Job ID: 240-37367-1

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

Lab Sample ID: MB 240-131003/7-A

Matrix: Water

Analysis Batch: 131104

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 131003

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1221	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1232	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1242	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1248	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1254	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1
Aroclor-1260	0.10	U	0.10	ug/L		05/16/14 12:32	05/19/14 10:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		10 - 114	05/16/14 12:32	05/19/14 10:08	1
Tetrachloro-m-xylene	77		15 - 131	05/16/14 12:32	05/19/14 10:08	1

Lab Sample ID: LCS 240-131003/8-A

Matrix: Water

Analysis Batch: 131104

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 131003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	1.85		ug/L		74	50 - 114
Aroclor-1260	2.50	1.79		ug/L		72	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	69		10 - 114
Tetrachloro-m-xylene	75		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-130930/1-A

Matrix: Water

Analysis Batch: 131273

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 130930

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		05/16/14 08:35	05/19/14 13:25	1
Nickel	0.010	U	0.010	mg/L		05/16/14 08:35	05/19/14 13:25	1
Lead	0.050	U	0.050	mg/L		05/16/14 08:35	05/19/14 13:25	1
Zinc	0.020	U	0.020	mg/L		05/16/14 08:35	05/19/14 13:25	1

Lab Sample ID: LCS 240-130930/2-A

Matrix: Water

Analysis Batch: 131273

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 130930

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	0.486		mg/L		97	85 - 115
Lead	0.500	0.463		mg/L		93	85 - 115
Zinc	0.500	0.493		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: 240-37367-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-130932/1-A

Matrix: Water

Analysis Batch: 131337

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 130932

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		05/16/14 13:45	05/19/14 14:03	1

Lab Sample ID: LCS 240-130932/2-A

Matrix: Water

Analysis Batch: 131337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00492		mg/L		98	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-131681/1-A

Matrix: Water

Analysis Batch: 131716

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 131681

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		05/22/14 08:36	05/22/14 10:17	1

Lab Sample ID: LCS 240-131681/2-A

Matrix: Water

Analysis Batch: 131716

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 131681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	41.7		mg/L		104	78 - 114

Lab Sample ID: 240-37367-1 MS

Matrix: Water

Analysis Batch: 131716

Client Sample ID: WT-12607-051414-EE-001

Prep Type: Total/NA

Prep Batch: 131681

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	4.8	U	37.8	30.3	F1	mg/L		77	78 - 114

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

Lab Sample ID: MB 240-131148/1

Matrix: Water

Analysis Batch: 131148

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			05/19/14 08:54	1

Lab Sample ID: LCS 240-131148/2

Matrix: Water

Analysis Batch: 131148

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	46.3	47.0		mg/L		102	73 - 113

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QC Sample Results

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

TestAmerica Job ID: 240-37367-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-130787/3

Matrix: Water

Analysis Batch: 130787

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			05/15/14 09:17	1

Lab Sample ID: LCS 240-130787/4

Matrix: Water

Analysis Batch: 130787

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	0.287		mg/L		115	80 - 118

Surrogate Summary

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

TestAmerica Job ID: 240-37367-1

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)
240-37367-1	WT-12607-051414-EE-001	109	62
LCS 240-131003/8-A	Lab Control Sample	69	75
MB 240-131003/7-A	Method Blank	73	77

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: 240-37367-1

Client Sample ID: WT-12607-051414-EE-001

Lab Sample ID: 240-37367-1

Date Collected: 05/14/14 16:30

Matrix: Water

Date Received: 05/15/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			131003	05/16/14 12:32	MPM	TAL CAN
Total/NA	Analysis	608		1	131104	05/19/14 08:57	LSH	TAL CAN
Total Recoverable	Prep	200.7			130930	05/16/14 08:35	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	131356	05/20/14 10:49	KLC	TAL CAN
Total Recoverable	Prep	200.7			130930	05/16/14 08:35	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	131273	05/19/14 14:09	KLC	TAL CAN
Total/NA	Prep	245.1			130932	05/16/14 13:45	ADS	TAL CAN
Total/NA	Analysis	245.1		1	131337	05/19/14 14:19	ADS	TAL CAN
Total/NA	Prep	1664A			131681	05/22/14 08:36	NJE	TAL CAN
Total/NA	Analysis	1664A		1	131716	05/22/14 10:17	NJE	TAL CAN
Total/NA	Analysis	SM 2540D		1	131148	05/19/14 08:54	AS	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	130787	05/15/14 10:05	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: 240-37367-1

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

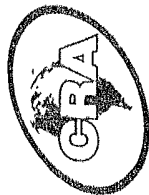
* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-37367 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

4.4

COC NO.: PL-11373

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, OH			SSOW ID: 12607-TOIY14-012		
Project Name: RACER Livonia GWTP			Lab Contact: Denise Hecker			Lab Quote No:			Cooler No:		
Project Location: Livonia, MI			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)			Carrier:		
Chemistry Contact: Rawla Fleisher, CRA			SAMPLE TYPE			Total Containers/Sample			Airbill No:		
Sampler(s): Erik Engnell			Matrix Code			EnCores 3x5-g, 1x25-g			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-12607-051414-EE-001			5/14/14			1630					
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TestAmerica Canton Sample Receipt Form/Narrative

Login # : 37367

Canton Facility

Client CRA Site Name Racer Livonia Group Cooler unpacked by: Mr. RossCooler Received on 5/15/14 Opened on 5/15/14FedEx: 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 +0 °C) Observed Cooler Temp. 4.4 °C Corrected Cooler Temp. 4.4 °C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

☐ See Multiple
Cooler Form2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA-Were custody seals on the bottle(s)? Yes No3. Shippers' packing slip attached to the cooler(s)? Yes No4. Did custody papers accompany the sample(s)? Yes No5. Were the custody papers relinquished & signed in the appropriate place? Yes No6. Did all bottles arrive in good condition (Unbroken)? Yes No7. Could all bottle labels be reconciled with the COC? Yes No8. Were correct bottle(s) used for the test(s) indicated? Yes No9. Sufficient quantity received to perform indicated analyses? Yes No10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC30258711. Were VOAs on the COC? Yes No12. Were air bubbles >6 mm in any VOA vials? Yes No NA13. 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:

TB

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): _____

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: 240-39098-1

Client Project/Site: 12607-T01Y14, RACER Eckles Rd

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

7/11/2014 8:49:24 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Job ID: 240-39098-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01Y14, RACER Eckles Rd

Report Number: 240-39098-1

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 07/01/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-063014--EE-001 (240-39098-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared and analyzed on 07/02/2014.

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 137027.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-063014--EE-001 (240-39098-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 07/02/2014 and analyzed on 07/03/2014.

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Job ID: 240-39098-1 (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-12607-063014--EE-001 (240-39098-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 07/02/2014 and analyzed on 07/07/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-063014--EE-001 (240-39098-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 07/10/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-12607-063014--EE-001 (240-39098-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 07/03/2014.

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

HEXAVALENT CHROMIUM

Sample WT-12607-063014--EE-001 (240-39098-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 07/01/2014.

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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-39098-1	WT-12607-063014--EE-001	Water	06/30/14 15:00	07/01/14 10:00

Detection Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Client Sample ID: WT-12607-063014--EE-001

Lab Sample ID: 240-39098-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.035		0.010	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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

Client Sample ID: WT-12607-063014--EE-001

Date Collected: 06/30/14 15:00

Date Received: 07/01/14 10:00

Lab Sample ID: 240-39098-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1221	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1232	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1242	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1248	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1254	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Aroclor-1260	0.095	U	0.095	ug/L		07/02/14 10:47	07/02/14 23:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		10 - 114			07/02/14 10:47	07/02/14 23:01	1
Tetrachloro-m-xylene	89		15 - 131			07/02/14 10:47	07/02/14 23:01	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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

Client Sample ID: WT-12607-063014--EE-001

Date Collected: 06/30/14 15:00

Date Received: 07/01/14 10:00

Lab Sample ID: 240-39098-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		07/02/14 09:10	07/03/14 19:58	1
Nickel	0.035		0.010	mg/L		07/02/14 09:10	07/03/14 19:58	1
Lead	0.050	U	0.050	mg/L		07/02/14 09:10	07/03/14 19:58	1
Zinc	0.020	U	0.020	mg/L		07/02/14 09:10	07/03/14 19:58	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-063014--EE-001

Date Collected: 06/30/14 15:00

Date Received: 07/01/14 10:00

Lab Sample ID: 240-39098-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/02/14 13:45	07/07/14 13:11	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

General Chemistry

Client Sample ID: WT-12607-063014--EE-001

Date Collected: 06/30/14 15:00

Date Received: 07/01/14 10:00

Lab Sample ID: 240-39098-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		07/10/14 08:50	07/10/14 08:50	1
Total Suspended Solids	4.0	U	4.0	mg/L			07/03/14 11:14	1
Cr (VI)	0.0050	U	0.0050	0.0019 mg/L			07/01/14 14:33	1

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

GC Semi VOA

Prep Batch: 137027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	3520C	
LCS 240-137027/9-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-137027/8-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 137081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	608	137027
LCS 240-137027/9-A	Lab Control Sample	Total/NA	Water	608	137027
MB 240-137027/8-A	Method Blank	Total/NA	Water	608	137027

Metals

Prep Batch: 136983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total Recoverable	Water	200.7	
LCS 240-136983/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-136983/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 136984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	245.1	
LCS 240-136984/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-136984/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 137227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total Recoverable	Water	200.7 Rev 4.4	136983
LCS 240-136983/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	136983
MB 240-136983/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	136983

Analysis Batch: 137453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	245.1	136984
LCS 240-136984/2-A	Lab Control Sample	Total/NA	Water	245.1	136984
MB 240-136984/1-A	Method Blank	Total/NA	Water	245.1	136984

General Chemistry

Analysis Batch: 136857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-136857/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-136857/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 137180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	SM 2540D	
LCS 240-137180/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-137180/1	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

General Chemistry (Continued)

Prep Batch: 137939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	1664A	
240-39098-1 MS	WT-12607-063014--EE-001	Total/NA	Water	1664A	
LCS 240-137939/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-137939/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 137979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39098-1	WT-12607-063014--EE-001	Total/NA	Water	1664A	137939
240-39098-1 MS	WT-12607-063014--EE-001	Total/NA	Water	1664A	137939
LCS 240-137939/2-A	Lab Control Sample	Total/NA	Water	1664A	137939
MB 240-137939/1-A	Method Blank	Total/NA	Water	1664A	137939

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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

Lab Sample ID: MB 240-137027/8-A

Matrix: Water

Analysis Batch: 137081

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 137027

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1221	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1232	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1242	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1248	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1254	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1
Aroclor-1260	0.10	U	0.10	ug/L		07/02/14 10:47	07/02/14 23:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		10 - 114	07/02/14 10:47	07/02/14 23:15	1
Tetrachloro-m-xylene	89		15 - 131	07/02/14 10:47	07/02/14 23:15	1

Lab Sample ID: LCS 240-137027/9-A

Matrix: Water

Analysis Batch: 137081

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 137027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.55		ug/L		102	50 - 114
Aroclor-1260	2.50	2.62		ug/L		105	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	89		10 - 114
Tetrachloro-m-xylene	90		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-136983/1-A

Matrix: Water

Analysis Batch: 137227

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 136983

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		07/02/14 09:10	07/03/14 15:11	1
Nickel	0.010	U	0.010	mg/L		07/02/14 09:10	07/03/14 15:11	1
Lead	0.050	U	0.050	mg/L		07/02/14 09:10	07/03/14 15:11	1
Zinc	0.020	U	0.020	mg/L		07/02/14 09:10	07/03/14 15:11	1

Lab Sample ID: LCS 240-136983/2-A

Matrix: Water

Analysis Batch: 137227

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 136983

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	0.494		mg/L		99	85 - 115
Lead	0.500	0.495		mg/L		99	85 - 115
Zinc	0.500	0.481		mg/L		96	85 - 115

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-136984/1-A

Matrix: Water

Analysis Batch: 137453

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 136984

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/02/14 13:45	07/07/14 12:26	1

Lab Sample ID: LCS 240-136984/2-A

Matrix: Water

Analysis Batch: 137453

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 136984

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00481		mg/L		96	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-137939/1-A

Matrix: Water

Analysis Batch: 137979

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 137939

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		07/10/14 08:50	07/10/14 08:50	1

Lab Sample ID: LCS 240-137939/2-A

Matrix: Water

Analysis Batch: 137979

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 137939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	34.6		mg/L		87	78 - 114

Lab Sample ID: 240-39098-1 MS

Matrix: Water

Analysis Batch: 137979

Client Sample ID: WT-12607-063014--EE-001

Prep Type: Total/NA

Prep Batch: 137939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	4.7	U	38.0	32.9		mg/L		86	78 - 114

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

Lab Sample ID: MB 240-137180/1

Matrix: Water

Analysis Batch: 137180

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			07/03/14 11:14	1

Lab Sample ID: LCS 240-137180/2

Matrix: Water

Analysis Batch: 137180

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	46.3	45.0		mg/L		97	73 - 113

TestAmerica Canton

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-136857/3

Matrix: Water

Analysis Batch: 136857

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	0.0019 mg/L			07/01/14 11:56	1

Lab Sample ID: LCS 240-136857/4

Matrix: Water

Analysis Batch: 136857

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	0.261		mg/L		105	80 - 118

Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

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)
240-39098-1	WT-12607-063014--EE-001	72	89
LCS 240-137027/9-A	Lab Control Sample	89	90
MB 240-137027/8-A	Method Blank	74	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 12607-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Client Sample ID: WT-12607-063014--EE-001

Lab Sample ID: 240-39098-1

Date Collected: 06/30/14 15:00

Matrix: Water

Date Received: 07/01/14 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			137027	07/02/14 10:47	RTR	TAL CAN
Total/NA	Analysis	608		1	137081	07/02/14 23:01	LSH	TAL CAN
Total Recoverable	Prep	200.7			136983	07/02/14 09:10	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	137227	07/03/14 19:58	RKT	TAL CAN
Total/NA	Prep	245.1			136984	07/02/14 13:45	ADS	TAL CAN
Total/NA	Analysis	245.1		1	137453	07/07/14 13:11	AMM2	TAL CAN
Total/NA	Analysis	1664A		1	137979	07/10/14 08:50	WAL	TAL CAN
Total/NA	Prep	1664A			137939	07/10/14 08:50	WAL	TAL CAN
Total/NA	Analysis	SM 2540D		1	137180	07/03/14 11:14	AS	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	136857	07/01/14 14:33	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-T01Y14, RACER Eckles Rd

TestAmerica Job ID: 240-39098-1

Laboratory: TestAmerica Canton

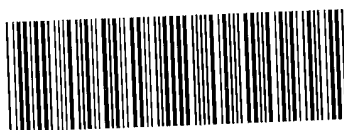
All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

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	06-30-14 *
Georgia	State Program	4	N/A	06-30-14 *
Illinois	NELAP	5	200004	07-31-14 *
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	07-31-14 *
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	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14 *
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-14 *

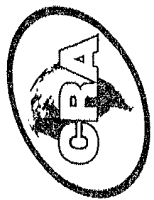
* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-39098 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-14406

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 012607-70114-003		Laboratory Name: TestAmerica		Lab Location: N Canton, OH		SSOW ID: 12607-70114-012	
Project Name: RACER Livonia G WTD		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location: Livonia, MI		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact: Rawl Fleisher, CRA		(see back of COC)		Unpreserved		MS/MSD Request	
Sampler(s): Er. K. Engnell, CRA		Grab (g) or Comp (c)		Nitric Acid (HNO ₃)		Carrier:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		Airbill No:	
WT-12607-063014-EE-001		06/30/14		1500		Date Shipped:	
1		WT-12607-063014-EE-001		1500		COMMENTS/SPECIAL INSTRUCTIONS:	
2		06/30/14		1500			
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
TAT Required in business days (use separate COCs for different TATs):		DATE		DATE		DATE	
☐ 1 Day ☐ 2 Days ☐ 3 Days ☒ 1 Week ☐ 2 Week ☐ Other: STD		06/30/14		06/30/14		06/30/14	
RELINQUISHED BY: Er. K. Engnell		COMPANY: CRA		RECEIVED BY: [Signature]		COMPANY: JTA	
1.		DATE		DATE		DATE	
2.		06/30/14		06/30/14		06/30/14	
3.							
Total Number of Containers: 6		All Samples in Cooler must be on COC		Notes/ Special Requirements:			

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-12607-063014--EE-001	240-39098-C-1	Plastic 250ml - with Nitric Acid	<2	_____	_____
WT-12607-063014--EE-001	240-39098-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-063014--EE-001	240-39098-G-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: 240-39635-1

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

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

7/28/2014 8:56:01 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, RACER Eckles Rd

TestAmerica Job ID: 240-39635-1

Job ID: 240-39635-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01, RACER Eckles Rd

Report Number: 240-39635-1

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 07/17/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-071614-EE-001 (240-39635-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 07/19/2014 and analyzed on 07/21/2014.

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 139212.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-071614-EE-001 (240-39635-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 07/18/2014 and analyzed on 07/21/2014.

Case Narrative

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

TestAmerica Job ID: 240-39635-1

Job ID: 240-39635-1 (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-12607-071614-EE-001 (240-39635-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 07/18/2014 and analyzed on 07/22/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-071614-EE-001 (240-39635-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 07/25/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-12607-071614-EE-001 (240-39635-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 07/22/2014.

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

HEXAVALENT CHROMIUM

Sample WT-12607-071614-EE-001 (240-39635-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 07/17/2014.

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: 240-39635-1

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, RACER Eckles Rd

TestAmerica Job ID: 240-39635-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-39635-1	WT-12607-071614-EE-001	Water	07/16/14 15:30	07/17/14 09:20

Detection Summary

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

TestAmerica Job ID: 240-39635-1

Client Sample ID: WT-12607-071614-EE-001

Lab Sample ID: 240-39635-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.28		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.19		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	9.0		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, RACER Eckles Rd

TestAmerica Job ID: 240-39635-1

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, RACER Eckles Rd

TestAmerica Job ID: 240-39635-1

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

Client Sample ID: WT-12607-071614-EE-001

Date Collected: 07/16/14 15:30

Date Received: 07/17/14 09:20

Lab Sample ID: 240-39635-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1221	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1232	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1242	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1248	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1254	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Aroclor-1260	0.095	U	0.095	ug/L		07/19/14 10:27	07/21/14 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	55		10 - 114			07/19/14 10:27	07/21/14 15:09	1
Tetrachloro-m-xylene	33		15 - 131			07/19/14 10:27	07/21/14 15:09	1

Client Sample Results

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

TestAmerica Job ID: 240-39635-1

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

Client Sample ID: WT-12607-071614-EE-001

Date Collected: 07/16/14 15:30

Date Received: 07/17/14 09:20

Lab Sample ID: 240-39635-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.28		0.050	mg/L		07/18/14 08:47	07/21/14 13:55	1
Nickel	0.19		0.010	mg/L		07/18/14 08:47	07/21/14 13:55	1
Lead	0.050	U	0.050	mg/L		07/18/14 08:47	07/21/14 13:55	1
Zinc	0.020	U	0.020	mg/L		07/18/14 08:47	07/21/14 13:55	1

Client Sample Results

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

TestAmerica Job ID: 240-39635-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-071614-EE-001

Date Collected: 07/16/14 15:30

Date Received: 07/17/14 09:20

Lab Sample ID: 240-39635-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/18/14 15:45	07/22/14 09:44	1

Client Sample Results

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

TestAmerica Job ID: 240-39635-1

General Chemistry

Client Sample ID: WT-12607-071614-EE-001

Date Collected: 07/16/14 15:30

Date Received: 07/17/14 09:20

Lab Sample ID: 240-39635-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.8	U	4.8	mg/L		07/25/14 08:03	07/25/14 08:03	1
Total Suspended Solids	9.0		4.0	mg/L			07/22/14 08:32	1
Cr (VI)	0.0050	U	0.0050	mg/L			07/17/14 11:23	1

QC Association Summary

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

TestAmerica Job ID: 240-39635-1

GC Semi VOA

Prep Batch: 139212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	3520C	
LCS 240-139212/6-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-139212/5-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 139384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	608	139212
LCS 240-139212/6-A	Lab Control Sample	Total/NA	Water	608	139212
MB 240-139212/5-A	Method Blank	Total/NA	Water	608	139212

Metals

Prep Batch: 139071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total Recoverable	Water	200.7	
LCS 240-139071/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-139071/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 139081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	245.1	
LCS 240-139081/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-139081/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 139350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total Recoverable	Water	200.7 Rev 4.4	139071
LCS 240-139071/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	139071
MB 240-139071/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	139071

Analysis Batch: 139677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	245.1	139081
LCS 240-139081/2-A	Lab Control Sample	Total/NA	Water	245.1	139081
MB 240-139081/1-A	Method Blank	Total/NA	Water	245.1	139081

General Chemistry

Analysis Batch: 138917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-138917/10	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-138917/9	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 139485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	SM 2540D	
LCS 240-139485/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-139485/1	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Canton

QC Association Summary

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

TestAmerica Job ID: 240-39635-1

General Chemistry (Continued)

Prep Batch: 140055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	1664A	
LCS 240-140055/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-140055/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 140095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-39635-1	WT-12607-071614-EE-001	Total/NA	Water	1664A	140055
LCS 240-140055/2-A	Lab Control Sample	Total/NA	Water	1664A	140055
MB 240-140055/1-A	Method Blank	Total/NA	Water	1664A	140055

QC Sample Results

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

TestAmerica Job ID: 240-39635-1

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

Lab Sample ID: MB 240-139212/5-A

Matrix: Water

Analysis Batch: 139384

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139212

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1221	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1232	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1242	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1248	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1254	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1
Aroclor-1260	0.10	U	0.10	ug/L		07/19/14 10:27	07/21/14 15:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		10 - 114	07/19/14 10:27	07/21/14 15:24	1
Tetrachloro-m-xylene	78		15 - 131	07/19/14 10:27	07/21/14 15:24	1

Lab Sample ID: LCS 240-139212/6-A

Matrix: Water

Analysis Batch: 139384

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 139212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.62		ug/L		105	50 - 114
Aroclor-1260	2.50	2.67		ug/L		107	8 - 127

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

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-139071/1-A

Matrix: Water

Analysis Batch: 139350

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 139071

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		07/18/14 08:47	07/21/14 09:42	1
Nickel	0.010	U	0.010	mg/L		07/18/14 08:47	07/21/14 09:42	1
Lead	0.050	U	0.050	mg/L		07/18/14 08:47	07/21/14 09:42	1
Zinc	0.020	U	0.020	mg/L		07/18/14 08:47	07/21/14 09:42	1

Lab Sample ID: LCS 240-139071/2-A

Matrix: Water

Analysis Batch: 139350

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 139071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.203		mg/L		101	85 - 115
Nickel	0.500	0.503		mg/L		101	85 - 115
Lead	0.500	0.497		mg/L		99	85 - 115
Zinc	0.500	0.512		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: 240-39635-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-139081/1-A
Matrix: Water
Analysis Batch: 139677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139081

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		07/18/14 15:45	07/22/14 09:07	1

Lab Sample ID: LCS 240-139081/2-A
Matrix: Water
Analysis Batch: 139677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00490		mg/L		98	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-140055/1-A
Matrix: Water
Analysis Batch: 140095

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		07/25/14 08:03	07/25/14 08:03	1

Lab Sample ID: LCS 240-140055/2-A
Matrix: Water
Analysis Batch: 140095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	39.9		mg/L		100	78 - 114

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

Lab Sample ID: MB 240-139485/1
Matrix: Water
Analysis Batch: 139485

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			07/22/14 08:32	1

Lab Sample ID: LCS 240-139485/2
Matrix: Water
Analysis Batch: 139485

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	84.3	76.0		mg/L		90	73 - 113

TestAmerica Canton

QC Sample Results

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

TestAmerica Job ID: 240-39635-1

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-138917/9

Matrix: Water

Analysis Batch: 138917

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			07/17/14 10:02	1

Lab Sample ID: LCS 240-138917/10

Matrix: Water

Analysis Batch: 138917

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	0.263		mg/L		105	80 - 118

Surrogate Summary

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

TestAmerica Job ID: 240-39635-1

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)
240-39635-1	WT-12607-071614-EE-001	55	33
LCS 240-139212/6-A	Lab Control Sample	87	87
MB 240-139212/5-A	Method Blank	82	78

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

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

TestAmerica Job ID: 240-39635-1

Client Sample ID: WT-12607-071614-EE-001

Lab Sample ID: 240-39635-1

Date Collected: 07/16/14 15:30

Matrix: Water

Date Received: 07/17/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			139212	07/19/14 10:27	SDE	TAL CAN
Total/NA	Analysis	608		1	139384	07/21/14 15:09	LSH	TAL CAN
Total Recoverable	Prep	200.7			139071	07/18/14 08:47	ADS	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	139350	07/21/14 13:55	KLC	TAL CAN
Total/NA	Prep	245.1			139081	07/18/14 15:45	ADS	TAL CAN
Total/NA	Analysis	245.1		1	139677	07/22/14 09:44	AMM2	TAL CAN
Total/NA	Analysis	1664A		1	140095	07/25/14 08:03	BLW	TAL CAN
Total/NA	Prep	1664A			140055	07/25/14 08:03	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	139485	07/22/14 08:32	AS	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	138917	07/17/14 11:23	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, RACER Eckles Rd

TestAmerica Job ID: 240-39635-1

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	07-31-14 *
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	07-31-14 *
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	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14 *
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-14 *

* Certification renewal pending - certification considered valid.

TestAmerica Canton

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-39635 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-14400

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 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: Rawl Fleisher, CRA		Sulfuric Acid (H ₂ SO ₄)		PCB's		Airbill No:			
Sampler(s): Erik Engnell, CRA		Nitric Acid (HNO ₃)		Metals		Date Shipped:			
		Hydrochloric Acid (HCl)		EnCores 3x5-g, 1x25-g		COMMENTS/SPECIAL INSTRUCTIONS:			
		Unpreserved		Other:					
		Grab (g) or Comp (c)		Total Containers/Sample					
		Matrix Code							
		(see back of COC)							
		DATE TIME							
		(month/day/year) (hr:min)							
WT-12607-071614-EE-001		07/16/14 1530							
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):		DATE		TIME		DATE		TIME	
☐ 1 Day ☐ 2 Days ☐ 3 Days ☒ 2 Week ☐ 1 Week ☐ Other: STD		CRA		07/16/14		1600		1600	
RELINQUISHED BY: Erik Engnell		CRA		07/16/14		1600		1600	
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)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 39685

Client CRA Site Name Elronia, ME Cooler unpacked by: Katharine
Cooler Received on 7/17/14 Opened on 7/17/14

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. 9.9 °C Corrected Cooler Temp. 9.9 °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 ☐

--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# HC302587

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:

Samples labeled 012607-071614-EE-001

Chain says 012607-071614-EE-003

Sample Labels = WT-12607-071614-EE-003 > Will log per
COC = WT-12607-071614-EE-001 EoC.

15. SAMPLE CONDITION

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

Sample(s) 012607-071614-EE-003 1x Amber liter 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):

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: 240-40978-1

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

For:

Conestoga-Rovers & Associates, Inc.

14496 Sheldon Road, Suite 200

Plymouth, Michigan 48170

Attn: Rawa Fleisher



Authorized for release by:

8/28/2014 10:20:29 AM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

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

TestAmerica Job ID: 240-40978-1

Job ID: 240-40978-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 12607-T01, RACER Eckles Rd

Report Number: 240-40978-1

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 08/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.2 C.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WT-12607-082014-EE-001 (240-40978-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 608. The samples were prepared on 08/22/2014 and analyzed on 08/25/2014.

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.

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

TOTAL RECOVERABLE METALS (ICP)

Sample WT-12607-082014-EE-001 (240-40978-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 08/22/2014 and analyzed on 08/25/2014.

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.

Case Narrative

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

TestAmerica Job ID: 240-40978-1

Job ID: 240-40978-1 (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-12607-082014-EE-001 (240-40978-1) was analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 08/22/2014 and analyzed on 08/25/2014.

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

N-HEXANE EXTRACTABLE MATERIAL

Sample WT-12607-082014-EE-001 (240-40978-1) was analyzed for n-hexane extractable material in accordance with EPA Method 1664A. The samples were prepared and analyzed on 08/27/2014.

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

TOTAL SUSPENDED SOLIDS

Sample WT-12607-082014-EE-001 (240-40978-1) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 08/25/2014.

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

HEXAVALENT CHROMIUM

Sample WT-12607-082014-EE-001 (240-40978-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR D. The samples were analyzed on 08/21/2014.

Cr (VI) failed the recovery criteria low for the MS of sample WT-12607-082014-EE-001MS (240-40978-1) in batch 240-143887.

Cr (VI) failed the recovery criteria low for the MSD of sample WT-12607-082014-EE-001MSD (240-40978-1) in batch 240-143887.

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, RACER Eckles Rd

TestAmerica Job ID: 240-40978-1

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, RACER Eckles Rd

TestAmerica Job ID: 240-40978-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-40978-1	WT-12607-082014-EE-001	Water	08/20/14 15:00	08/21/14 09:45

Detection Summary

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

TestAmerica Job ID: 240-40978-1

Client Sample ID: WT-12607-082014-EE-001

Lab Sample ID: 240-40978-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.090		0.050	mg/L	1		200.7 Rev 4.4	Total
Nickel	0.082		0.010	mg/L	1		200.7 Rev 4.4	Recoverable Total
Total Suspended Solids	11		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, RACER Eckles Rd

TestAmerica Job ID: 240-40978-1

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, RACER Eckles Rd

TestAmerica Job ID: 240-40978-1

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

Client Sample ID: WT-12607-082014-EE-001

Date Collected: 08/20/14 15:00

Date Received: 08/21/14 09:45

Lab Sample ID: 240-40978-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1221	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1232	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1242	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1248	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1254	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Aroclor-1260	0.095	U	0.095	ug/L		08/22/14 08:07	08/25/14 18:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 114			08/22/14 08:07	08/25/14 18:33	1
Tetrachloro-m-xylene	84		15 - 131			08/22/14 08:07	08/25/14 18:33	1

Client Sample Results

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

TestAmerica Job ID: 240-40978-1

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

Client Sample ID: WT-12607-082014-EE-001

Date Collected: 08/20/14 15:00

Date Received: 08/21/14 09:45

Lab Sample ID: 240-40978-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.090		0.050	mg/L		08/22/14 09:08	08/25/14 15:01	1
Nickel	0.082		0.010	mg/L		08/22/14 09:08	08/25/14 15:01	1
Lead	0.050	U	0.050	mg/L		08/22/14 09:08	08/25/14 15:01	1
Zinc	0.020	U	0.020	mg/L		08/22/14 09:08	08/25/14 15:01	1

Client Sample Results

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

TestAmerica Job ID: 240-40978-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: WT-12607-082014-EE-001

Date Collected: 08/20/14 15:00

Date Received: 08/21/14 09:45

Lab Sample ID: 240-40978-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		08/22/14 15:35	08/25/14 11:36	1

Client Sample Results

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

TestAmerica Job ID: 240-40978-1

General Chemistry

Client Sample ID: WT-12607-082014-EE-001

Date Collected: 08/20/14 15:00

Date Received: 08/21/14 09:45

Lab Sample ID: 240-40978-1

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	4.7	U	4.7	mg/L		08/27/14 15:09	08/27/14 15:18	1
Total Suspended Solids	11		4.0	mg/L			08/25/14 08:44	1
Cr (VI)	0.0050	U	0.0050	mg/L			08/21/14 13:35	1

QC Association Summary

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

TestAmerica Job ID: 240-40978-1

GC Semi VOA

Prep Batch: 143983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	3520C	
LCS 240-143983/6-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-143983/5-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 144350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	608	143983
LCS 240-143983/6-A	Lab Control Sample	Total/NA	Water	608	143983
MB 240-143983/5-A	Method Blank	Total/NA	Water	608	143983

Metals

Prep Batch: 144012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total Recoverable	Water	200.7	
240-40978-1 MS	WT-12607-082014-EE-001	Total Recoverable	Water	200.7	
240-40978-1 MSD	WT-12607-082014-EE-001	Total Recoverable	Water	200.7	
LCS 240-144012/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 240-144012/1-A	Method Blank	Total Recoverable	Water	200.7	

Prep Batch: 144014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	245.1	
240-40978-1 MS	WT-12607-082014-EE-001	Total/NA	Water	245.1	
240-40978-1 MSD	WT-12607-082014-EE-001	Total/NA	Water	245.1	
LCS 240-144014/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-144014/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 144284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total Recoverable	Water	200.7 Rev 4.4	144012
240-40978-1 MS	WT-12607-082014-EE-001	Total Recoverable	Water	200.7 Rev 4.4	144012
240-40978-1 MSD	WT-12607-082014-EE-001	Total Recoverable	Water	200.7 Rev 4.4	144012
LCS 240-144012/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	144012
MB 240-144012/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	144012

Analysis Batch: 144357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	245.1	144014
240-40978-1 MS	WT-12607-082014-EE-001	Total/NA	Water	245.1	144014
240-40978-1 MSD	WT-12607-082014-EE-001	Total/NA	Water	245.1	144014
LCS 240-144014/2-A	Lab Control Sample	Total/NA	Water	245.1	144014
MB 240-144014/1-A	Method Blank	Total/NA	Water	245.1	144014

General Chemistry

Analysis Batch: 143887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	SM 3500 CR D	
240-40978-1 MS	WT-12607-082014-EE-001	Total/NA	Water	SM 3500 CR D	

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QC Association Summary

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

TestAmerica Job ID: 240-40978-1

General Chemistry (Continued)

Analysis Batch: 143887 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1 MSD	WT-12607-082014-EE-001	Total/NA	Water	SM 3500 CR D	
LCS 240-143887/4	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
MB 240-143887/3	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 144269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	SM 2540D	
LCS 240-144269/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 240-144269/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 144592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	1664A	
LCS 240-144592/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 240-144592/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 144613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-40978-1	WT-12607-082014-EE-001	Total/NA	Water	1664A	144592
LCS 240-144592/2-A	Lab Control Sample	Total/NA	Water	1664A	144592
MB 240-144592/1-A	Method Blank	Total/NA	Water	1664A	144592

QC Sample Results

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

TestAmerica Job ID: 240-40978-1

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

Lab Sample ID: MB 240-143983/5-A

Matrix: Water

Analysis Batch: 144350

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 143983

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1221	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1232	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1242	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1248	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1254	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1
Aroclor-1260	0.10	U	0.10	ug/L		08/22/14 08:07	08/25/14 19:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		10 - 114	08/22/14 08:07	08/25/14 19:31	1
Tetrachloro-m-xylene	83		15 - 131	08/22/14 08:07	08/25/14 19:31	1

Lab Sample ID: LCS 240-143983/6-A

Matrix: Water

Analysis Batch: 144350

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 143983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	2.50	2.15		ug/L		86	50 - 114
Aroclor-1260	2.50	2.30		ug/L		92	8 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	89		10 - 114
Tetrachloro-m-xylene	74		15 - 131

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-144012/1-A

Matrix: Water

Analysis Batch: 144284

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 144012

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.050	U	0.050	mg/L		08/22/14 09:08	08/25/14 08:38	1
Nickel	0.010	U	0.010	mg/L		08/22/14 09:08	08/25/14 08:38	1
Lead	0.050	U	0.050	mg/L		08/22/14 09:08	08/25/14 08:38	1
Zinc	0.020	U	0.020	mg/L		08/22/14 09:08	08/25/14 08:38	1

Lab Sample ID: LCS 240-144012/2-A

Matrix: Water

Analysis Batch: 144284

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 144012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.202		mg/L		101	85 - 115
Nickel	0.500	0.503		mg/L		101	85 - 115
Lead	0.500	0.499		mg/L		100	85 - 115
Zinc	0.500	0.506		mg/L		101	85 - 115

TestAmerica Canton

QC Sample Results

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

TestAmerica Job ID: 240-40978-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 240-40978-1 MS

Matrix: Water

Analysis Batch: 144284

Client Sample ID: WT-12607-082014-EE-001

Prep Type: Total Recoverable

Prep Batch: 144012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.090		0.200	0.293		mg/L		102	75 - 125
Nickel	0.082		0.500	0.600		mg/L		104	75 - 125
Lead	0.050	U	0.500	0.518		mg/L		104	75 - 125
Zinc	0.020	U	0.500	0.512		mg/L		102	75 - 125

Lab Sample ID: 240-40978-1 MSD

Matrix: Water

Analysis Batch: 144284

Client Sample ID: WT-12607-082014-EE-001

Prep Type: Total Recoverable

Prep Batch: 144012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.090		0.200	0.292		mg/L		101	75 - 125	0	20
Nickel	0.082		0.500	0.599		mg/L		103	75 - 125	0	20
Lead	0.050	U	0.500	0.514		mg/L		103	75 - 125	1	20
Zinc	0.020	U	0.500	0.512		mg/L		102	75 - 125	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-144014/1-A

Matrix: Water

Analysis Batch: 144357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 144014

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	mg/L		08/22/14 15:35	08/25/14 11:32	1

Lab Sample ID: LCS 240-144014/2-A

Matrix: Water

Analysis Batch: 144357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00430		mg/L		86	85 - 115

Lab Sample ID: 240-40978-1 MS

Matrix: Water

Analysis Batch: 144357

Client Sample ID: WT-12607-082014-EE-001

Prep Type: Total/NA

Prep Batch: 144014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00100	0.000892		mg/L		89	70 - 130

Lab Sample ID: 240-40978-1 MSD

Matrix: Water

Analysis Batch: 144357

Client Sample ID: WT-12607-082014-EE-001

Prep Type: Total/NA

Prep Batch: 144014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00100	0.000900		mg/L		90	70 - 130	1	20

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QC Sample Results

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

TestAmerica Job ID: 240-40978-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-144592/1-A

Matrix: Water

Analysis Batch: 144613

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 144592

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	5.0	U	5.0	mg/L		08/27/14 07:59	08/27/14 07:59	1

Lab Sample ID: LCS 240-144592/2-A

Matrix: Water

Analysis Batch: 144613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144592

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 240-144269/1

Matrix: Water

Analysis Batch: 144269

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			08/25/14 08:44	1

Lab Sample ID: LCS 240-144269/2

Matrix: Water

Analysis Batch: 144269

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	89.0		mg/L		90	73 - 113

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 240-143887/3

Matrix: Water

Analysis Batch: 143887

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			08/21/14 13:25	1

Lab Sample ID: LCS 240-143887/4

Matrix: Water

Analysis Batch: 143887

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	0.260		mg/L		104	80 - 118

Lab Sample ID: 240-40978-1 MS

Matrix: Water

Analysis Batch: 143887

Client Sample ID: WT-12607-082014-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	0.0412	F1	mg/L		16	41 - 136

TestAmerica Canton

QC Sample Results

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

TestAmerica Job ID: 240-40978-1

Method: SM 3500 CR D - Chromium, Hexavalent (Continued)

Lab Sample ID: 240-40978-1 MSD

Matrix: Water

Analysis Batch: 143887

Client Sample ID: WT-12607-082014-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	0.0374	F1	mg/L	—	15	41 - 136	10	20

Surrogate Summary

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

TestAmerica Job ID: 240-40978-1

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)
240-40978-1	WT-12607-082014-EE-001	84	84
LCS 240-143983/6-A	Lab Control Sample	89	74
MB 240-143983/5-A	Method Blank	97	83

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Lab Chronicle

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

TestAmerica Job ID: 240-40978-1

Client Sample ID: WT-12607-082014-EE-001

Lab Sample ID: 240-40978-1

Date Collected: 08/20/14 15:00

Matrix: Water

Date Received: 08/21/14 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			143983	08/22/14 08:07	JDR	TAL CAN
Total/NA	Analysis	608		1	144350	08/25/14 18:33	LSH	TAL CAN
Total Recoverable	Prep	200.7			144012	08/22/14 09:08	WAL	TAL CAN
Total Recoverable	Analysis	200.7 Rev 4.4		1	144284	08/25/14 15:01	KLC	TAL CAN
Total/NA	Prep	245.1			144014	08/22/14 15:35	WAL	TAL CAN
Total/NA	Analysis	245.1		1	144357	08/25/14 11:36	AMM2	TAL CAN
Total/NA	Prep	1664A			144592	08/27/14 15:09	BLW	TAL CAN
Total/NA	Analysis	1664A		1	144613	08/27/14 15:18	BLW	TAL CAN
Total/NA	Analysis	SM 2540D		1	144269	08/25/14 08:44	AS1	TAL CAN
Total/NA	Analysis	SM 3500 CR D		1	143887	08/21/14 13:35	LCN	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: 240-40978-1

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	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14 *
Washington	State Program	10	C971	01-12-15
West Virginia DEP	State Program	3	210	12-31-14
Wisconsin	State Program	5	999518190	08-31-14 *

* Certification renewal pending - certification considered valid.

TestAmerica Canton

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-40978 Chain of Custody



CHAIN OF CUSTODY RECORD

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

Phone: (734) 453-5123

Fax: (734) 453-5201

COC NO: PL-1374

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 012607-T01Y14-003		Laboratory Name: Test America		Lab Location: Canton, OH		SSOW ID: 12607-T01Y14-012	
Project Name: RACER-Livonia GWTP		Lab Contact: Denise Heckler		Lab Quote No:		Cooler No:	
Project Location: Livonia		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact: Rawl Fleisher, CRA		Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)	
Sampler(s): Erik Engnell, CRA		Matrix Code		(see back of COC)		Nitric Acid (HNO3)	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		Sulfuric Acid (H2SO4)	
WT-12607-082014-EE-001		8/20/14		1500		Sodium Hydroxide (NaOH)	
1		WT C		V		Methanol/Water (Soil VOC)	
2		V		V		EnCores 3x5-g, 1x25-g	
3		V		V		Other:	
4		V		V		Total Containers/Sample	
5		V		V		PCBe	
6		V		V		Metals	
7		V		V		Cr(VI), TSS	
8		V		V		MS/MSD Request	
9		V		V		Carrier:	
10		V		V		Airbill No:	
11		V		V		Date Shipped:	
12		V		V		COMMENTS/SPECIAL INSTRUCTIONS:	
13		V		V		DATE	
14		V		V		TIME	
15		V		V		COMPANY	
16		V		V		RECEIVED BY	
17		V		V		DATE	
18		V		V		TIME	
19		V		V		COMPANY	
20		V		V		RECEIVED BY	
21		V		V		DATE	
22		V		V		TIME	
23		V		V		COMPANY	
24		V		V		RECEIVED BY	
25		V		V		DATE	
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27		V		V		COMPANY	
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42		V		V		TIME	
43		V		V		COMPANY	
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45		V		V		DATE	
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47		V		V		COMPANY	
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59		V		V		COMPANY	
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71		V		V		COMPANY	
72		V		V		RECEIVED BY	
73		V		V		DATE	
74		V		V		TIME	
75		V		V		COMPANY	
76		V		V		RECEIVED BY	
77		V		V		DATE	
78		V		V		TIME	
79		V		V		COMPANY	
80		V		V		RECEIVED BY	
81		V		V		DATE	
82		V		V		TIME	
83		V		V		COMPANY	
84		V		V		RECEIVED BY	
85		V		V		DATE	
86							

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

WHITE – Fully Executed Conv (CRA)

VEILOW – Receiving Laboratory Conv

PINK — Shinnor

CELESTINE - Celestine Cream

1900-1901

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 40978

Canton Facility

Client CRA Site Name RAWA

Cooler unpacked by:

Cooler Received on 8/21/14 Opened on 8/21/14Heath W. RameyFedEx: 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. °CIR GUN# 4 (CF -2 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °CIR GUN# 5 (CF 0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °CIR GUN# 8 (CF 0 °C) Observed Cooler Temp. 1.2 °C Corrected Cooler Temp. 1.2 °C☐ See Multiple Cooler Form2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2Yes ☒ 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:

HRP

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>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
WT-12607-082014-EE-001	240-40978-B-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
WT-12607-082014-EE-001	240-40978-E-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____
WT-12607-082014-EE-001	240-40978-F-1	Amber Glass 1 liter - Sulfuric Acid	<2	_____	_____