32N03.GW74

Robert Bucci, Consultant
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Niagara Falls, New York 14304
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August 1, 2011 Reference No. 005513

Ms. Mary F. McIntosh
Engineering Geologist II
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
270 Michigan Avenue
Buffalo, NY 14203-2999

Dear Ms. McIntosh:

Re: Annual Monitoring Event 2011
UCAR Republic (Graftech Int) SWMF #32N03

The annual monitoring event for the above-referenced Site was conducted on May 5, 2011. The Site groundwater monitoring program was modified in November 2005 and currently consists of the following (excerpt from letter from C. Barron (CRA) to M. McIntosh (NYSDEC) dated November 4, 2005.):

> Annual sampling of seven wells (BW-1, BW-2, BW-3, BW-4, MW-3, GW-8B, and GW-9B) with analysis of the samples for Part 360 volatiles, ammonia, iron (total and soluble), potassium (total and soluble), zinc (total and soluble), nitrite, total kjeldahl nitrogen (TKN), turbidity, groundwater elevation, pH, specific conductance, and temperature. Monitoring is rotated between the spring and fall seasons such that one year sampling is conducted in the spring and the next year it will be conducted in the fall. Sampling is conducted once in each calendar year and reporting is submitted annually following receipt and review of the groundwater analytical data.

The sample collection and analyses were performed in accordance with the program outlined in the letters from M. McIntosh (NYSDEC) to R. Bucci (UCAR), dated January 18, 2000 and February 23, 2000. Attached is an email sent by Craig Gabriel of CRA to
on July 14, 2011 which contained the electronic results of our sampling, please contact me in the event there was a problem since this is a new system. I have enclosed a hard copy of our results for you.

August 1, 2011 Reference No. 005513

The analytical data from this monitoring event are consistent with the historical data.

The next groundwater monitoring event at the Site will be conducted in the Fall of 2012. Should you have any questions or require additional information, please do not hesitate to contact the undersigned at 716-628-8208.

Yours truly,

Robert Bucci
Site Consultant

Encl.

c.c.: M. Hans
M. Hinton
J. M. Bursley

verizon

Verizon Message Center

Tuesday, Jul 19 at 7:43 AM

From: "Kay, Jim" <jkay@craworld.com>

To: nia3344@verizon.net

Subject: FW: UCAR Carbon Co Inc - May 2011 Annual GW EDD

Bob
Here is the original email of the transfer of data to help Mike find it

Jim

From: Gabriel, Craig
Sent: Thursday, July 14, 2011 1:15 PM
To: 'NYENVDATA@gw.dec.state.ny.us'
Cc: Scrocchi, Susan; Kay, Jim
Subject: UCAR Carbon Co Inc - May 2011 Annual GW EDD

Please find the attached EDD submittal

Thanks

Craig

Craig A. Gabriel
Conestoga-Rovers & Associates (CRA)
2055 Niagara Falls Blvd., Suite Three
Niagara Falls, NY 14304

Phone 716-297-6150 ext # 281
Cell 716-946-9715
Fax 716-297-6296
Email cgabriel@CRAworld.com
www.CRAworld.com
Think before you print

CONESTOGA-ROVERS & ASSOCIATES

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

TO: Jim Kay

REF. NO.: 005513

FROM: Susan Scrocchi/bjw/5 SCS

DATE: July 15, 2011

E-Mail and Hard Copy If Requested

RE: **Analytical Results and QA/QC Review**
Annual Groundwater Monitoring Program
UCAR Carbon Company, Inc.
Niagara Falls, New York
May 2011

INTRODUCTION

Eight groundwater samples, including one field duplicate sample were collected during May 2011 in support of the annual monitoring program at the UCAR Carbon Site in Niagara Falls, New York (Site). The samples were submitted to Columbia Analytical Services (CAS), located in Rochester, New York, and analyzed for the following:

Parameter	*Methodology*
Volatile Organic Compounds (VOCs)	SW-846 8260B[1]
Total & Dissolved Iron, Potassium, and Zinc	SW-846 6010B[1]
Ammonia	USEPA 350.1[2]
Nitrite	USEPA 353.2[2]
Total Kjeldahl Nitrogen (TKN)	USEPA 351.2[2]

A sampling and analysis summary is presented in Table 1. The analytical results are summarized in Table 2. The quality assurance/quality control (QA/QC) criteria by which the data have been assessed are outlined in the respective methods and the following documents:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", October 1999, United States Environmental Protection Agency (USEPA) 540/R-99/008

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", February 1994, USEPA 540/R-94/013

1 "Test Methods for Solid Waste Physical/Chemical Methods", SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

2 "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency (USEPA) 600/4-79-220, March 1983 (with all subsequent revisions).

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results, supporting QA/QC and raw data provided.

HOLDING TIME PERIOD AND SAMPLE ANALYSIS

The holding time periods are presented in the analytical methods. All samples were properly preserved and cooled to 4°C (±2°C) after collection. All samples were prepared and analyzed within the method-required holding times.

GAS CHROMATOGRAPHY/MASS SPECTROMETER (GC/MS) MASS CALIBRATION

Prior to analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, the volatile organic compound (VOC) method requires the analysis of the specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the method before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Instrument tuning data were reviewed. The tuning compound was analyzed at the required frequency throughout the VOC analysis periods. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

INITIAL CALIBRATION - GC/MS ANALYSES

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a minimum of a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range.

Calibration data were reviewed for all samples. Linearity of the calibration curve and instrument sensitivity were evaluated against the following criteria:

i) All relative response factors (RRFs) for the GC/MS must be greater than or equal to 0.05.

ii) Percent relative standard deviation (%RSD) values for the GC/MS must not exceed 30 percent, or if linear regression is used, the correlation coefficient (R^2) value must be at least 0.990.

Initial calibration standards were analyzed as required and the data showed acceptable sensitivity and linearity.

INITIAL CALIBRATION - METALS ANALYSES

To calibrate the inductively coupled plasma (ICP), a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. After calibration, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves

within a method-specific percent recovery of the accepted or true value. A Contract Required Detection Limit (CRDL) standard is analyzed before and after sample analyses to verify instrument sensitivity.

A review of the data showed that all metals calibration curves, ICVs and CRDL were analyzed at the proper frequencies and were within the acceptance criteria.

INITIAL CALIBRATION - GENERAL CHEMISTRY ANALYSES

The general chemistry analyses of ammonia, nitrite, and TKN were calibrated in accordance with the methods and all calibration criteria were met.

CONTINUING CALIBRATION - GC/MS

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

i) All RRF values for the GC/MS must be greater than or equal to 0.05.

ii) Percent difference (%D) values must not exceed 25 percent.

Continuing calibration standards were analyzed at the required frequency and the results met the above criteria for instrument sensitivity and linearity of response.

CONTINUING CALIBRATION - INORGANICS

Continuing calibration criteria for inorganic analyses were the same criteria as used for assessing the initial calibration data. All continuing calibration verification data were within the acceptance criteria.

SURROGATE COMPOUND RECOVERIES

Surrogates were added to all samples, blanks, and QC samples prior to analysis of VOCs. All recoveries met the method criteria.

METHOD BLANK SAMPLES

Method blanks were analyzed for all parameters. All results were non-detect, indicating that contamination during analysis was not a concern.

LABORATORY CONTROL SAMPLE (LCS) ANALYSIS

The LCS serves as a measure of overall analytical performance. LCSs are prepared with all analytes of interest and analyzed with each sample batch.

LCSs were prepared and analyzed for all parameters at the proper frequency. The LCS recoveries were within the control limits for all analytes of interest, indicating acceptable analytical accuracy.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

The recoveries of MS analyses are used to assess the analytical accuracy achieved on individual sample matrices. MS/MSD analyses were performed on the sample submitted for metals and VOC analysis. All MS/MSD recoveries and relative percent differences (RPDs) were within laboratory control limits for all analytes of interest, indicating good analytical accuracy and precision with the exception of a low ammonia recovery. All associated ammonia results were qualified as estimated (see Table 3).

LABORATORY DUPLICATE ANALYSES

Laboratory duplicates were performed for inorganic analyses. All results were within laboratory control limits showing acceptable analytical precision.

INDUCTIVELY COUPLED PLASMA (ICP) INTERFERENCE CHECK SAMPLE (ICS) ANALYSIS

To verify that proper inter-element and background correction factors have been established by the laboratory, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period.

ICS analysis results were evaluated for all samples. All ICS recoveries were within the established control limits of 80 to 120 percent.

SERIAL DILUTION - METALS ANALYSES

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. A minimum of one per 20 investigative samples is analyzed at a five-fold dilution. For samples with sufficient analyte concentrations, the serial dilution results must agree within 10 percent of the original results.

Serial dilution analyses were performed and all results were within the method criteria.

INTERNAL STANDARD (IS) SUMMARIES

To correct for changes in GC/MS response and sensitivity, IS compounds are added to investigative samples and QC samples prior to VOC analyses. All results are calculated as a ratio of the IS response. The criteria by which the IS results are assessed are as follows:

i) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard.

ii) The retention time of the IS must not vary more than ±30 seconds from the associated calibration standard.

All sample IS results met the above criteria and were correctly used to calculate sample results.

TRIP BLANKS - VOCS

Trip blanks are transported, stored, and analyzed with the investigative samples to identify potential cross-contamination of VOCs. A trip blank was collected as shown on Table 1. All results were non-detect for the analytes of interest, indicating that contamination during transport and storage was not an issue.

FIELD DUPLICATES

Samples were collected in duplicate as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside of estimated ranges of detection showed acceptable sampling and analytical precision.

CONCLUSION

Based on the preceding assessment, the data were acceptable for use with the qualifications noted.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

				Analysis/Parameters					
Sample I.D.	*Location I.D.*	*Collection Date (mm/dd/yy)*	*Collection Time (hr:min)*	*VOCs*	*Selected Metals-total and dissolved*	*TKN*	*Nitrate*	*Ammonia*	*Comments*
WG-5513050511-001	GW-9B	05/05/11	10:35	X	X	X	X	X	
WG-5513050511-002	BW-2	05/05/11	12:15	X	X	X	X	X	
WG-5513050511-003	BW-3	05/05/11	13:25	X	X	X	X	X	
WG-5513050511-004	BW-4	05/05/11	14:15	X	X	X	X	X	
WG-5513050511-005	BW-1	05/05/11	15:15	X	X	X	X	X	
WG-5513050511-006	GW-8B	05/05/11	15:40	X	X	X	X	X	
WG-5513050511-007	GW-8B	05/05/11	*16:45*	X	X	X	X	X	Field Duplicate of WG-5513050511-006
WG-5513050511-008	MW-3	05/05/11	16:20	X	X	X	X	X	
TB-5513-050511	TRIP BLANK	05/05/11	-	X					Trip blank

Notes:

- = Not applicable.
TKN - Total Kjeldahl Nitrogen.
VOCs - Volatile Organic Compounds.

TABLE 2

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

	Sample Location:	*BW-1*	*BW-2*	*BW-3*	*BW-4*	*GW-8B*
	Sample ID:	*WG-5513-050511-005*	*WG-5513-050511-002*	*WG-5513-050511-003*	*WG-5513-050511-004*	*WG-5513-050511-006*
	Sample Date:	*05/05/2011*	*05/05/2011*	*05/05/2011*	*05/05/2011*	*05/05/2011*
Parameters	*Units*					
Volatile Organic Compounds						
1,1,1-TRICHLOROETHANE	µg/L	0.3 U	0.3 U	0.98 J	0.3 U	0.3 U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U	4.1 J	0.3 U
1,1,2-TRICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHANE	µg/L	0.3 U	0.3 U	0.88 J	0.3 U	0.3 U
1,1-DICHLOROETHENE	µg/L	0.37 U	0.37 U	0.37 U	4.2 J	0.37 U
1,2-DICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	µg/L	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
2-HEXANONE	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
ACETONE	µg/L	1.8 J	2.4 J	1.6 U	1.6 U	1.9 J
BENZENE	µg/L	0.31 U	0.31 U	0.31 U	0.52 J	0.31 U
BROMODICHLOROMETHANE	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
BROMOFORM	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOMETHANE	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CARBON DISULFIDE	µg/L	0.42 J	0.66 J	0.35 U	0.35 U	0.35 U
CARBON TETRACHLORIDE	µg/L	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
CHLOROBENZENE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	µg/L	10	0.94 J	0.3 U	0.3 U	0.3 U
CHLOROFORM	µg/L	0.3 U	0.3 U	0.3 U	5.6	0.3 U
CHLOROMETHANE	µg/L	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
CIS-1,3-DICHLOROPROPENE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
DIBROMOCHLOROMETHANE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
DICHLOROETHYLENES	µg/L	0.79 J	0.6 U	0.95 J	1000 D	19
DIMETHYL BENZENE	µg/L	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
ETHYLBENZENE	µg/L	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
METHYL ETHYL KETONE (2-BUTANONE)	µg/L	1 U	1 U	1 U	1 U	1 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	µg/L	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
METHYLENE CHLORIDE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
STYRENE	µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
TETRACHLOROETHYLENE (PCE)	µg/L	0.42 U	0.42 U	0.42 U	92	0.42 U

TABLE 2

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

	Sample Location:	*BW-1*	*BW-2*	*BW-3*	*BW-4*	*GW-8B*
	Sample ID:	*WG-5513-050511-005*	*WG-5513-050511-002*	*WG-5513-050511-003*	*WG-5513-050511-004*	*WG-5513-050511-006*
	Sample Date:	*05/05/2011*	*05/05/2011*	*05/05/2011*	*05/05/2011*	*05/05/2011*
Parameters	*Units*					
Volatile Organic Compounds (Cont'd.)						
TOLUENE	µg/L	0.3 U	0.3 U	0.3 U	0.51 J	0.3 U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TRICHLOROETHYLENE (TCE)	µg/L	0.3 U	0.3 U	0.3 U	390 D	8.2
VINYL CHLORIDE	µg/L	0.81 J	0.3 U	0.3 U	190	2.9 J
Metals						
IRON	µg/L	1910	7790	350	10100	470
IRON (dissolved)	µg/L	1130	1720	179	4590	180
POTASSIUM	µg/L	6460	5980	1180 J	16800	5680
POTASSIUM (dissolved)	µg/L	6100	6220	1170 J	16600	5300
ZINC	µg/L	9230	1320	648	1250	1780
ZINC (dissolved)	µg/L	59.5	132	509	203	454
Wet Chemistry						
NITROGEN, AMMONIA (AS N)	mg/L	0.786 J	0.383 J	0.004 UJ	2.87 J	0.004 UJ
NITROGEN, KJELDAHL, TOTAL	mg/L	1.21	1.02	0.09 U	3.49	0.09 U
NITROGEN, NITRITE	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U

TABLE 2

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

	Sample Location:	*GW-8B*	*GW-9B*	*MW-3*
	Sample ID:	*WG-5513-050511-007*	*WG-5513-050511-001*	*WG-5513-050511-008*
	Sample Date:	*05/05/2011*	*05/05/2011*	*05/05/2011*
		Duplicate		
Parameters	*Units*			
Volatile Organic Compounds				
1,1,1-TRICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
1,1,2-TRICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	µg/L	0.37 U	0.37 U	0.37 U
1,2-DICHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	µg/L	0.66 U	0.66 U	0.66 U
2-HEXANONE	µg/L	0.4 U	0.4 U	0.4 U
ACETONE	µg/L	1.8 J	1.9 J	1.6 U
BENZENE	µg/L	0.31 U	0.31 U	0.31 U
BROMODICHLOROMETHANE	µg/L	0.41 U	0.41 U	0.41 U
BROMOFORM	µg/L	0.3 U	0.3 U	0.3 U
BROMOMETHANE	µg/L	0.4 U	0.4 U	0.4 U
CARBON DISULFIDE	µg/L	0.35 U	0.35 U	0.35 U
CARBON TETRACHLORIDE	µg/L	0.36 U	0.36 U	0.36 U
CHLOROBENZENE	µg/L	0.3 U	0.3 U	0.3 U
CHLOROETHANE	µg/L	0.3 U	0.3 U	0.3 U
CHLOROFORM	µg/L	0.3 U	0.3 U	0.3 U
CHLOROMETHANE	µg/L	0.46 U	0.46 U	0.46 U
CIS-1,3-DICHLOROPROPENE	µg/L	0.3 U	0.3 U	0.3 U
DIBROMOCHLOROMETHANE	µg/L	0.3 U	0.3 U	0.3 U
DICHLOROETHYLENES	µg/L	20	0.6 U	0.6 U
DIMETHYL BENZENE	µg/L	1.2 U	1.2 U	1.2 U
ETHYLBENZENE	µg/L	0.42 U	0.42 U	0.42 U
METHYL ETHYL KETONE (2-BUTANONE)	µg/L	1 U	1 U	1 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	µg/L	0.34 U	0.34 U	0.34 U
METHYLENE CHLORIDE	µg/L	0.3 U	0.3 U	0.3 U
STYRENE	µg/L	0.35 U	0.35 U	0.35 U
TETRACHLOROETHYLENE (PCE)	µg/L	0.42 U	0.42 U	0.42 U

TABLE 2

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

	Sample Location:	*GW-8B*	*GW-9B*	*MW-3*
	Sample ID:	*WG-5513-050511-007*	*WG-5513-050511-001*	*WG-5513-050511-008*
	Sample Date:	*05/05/2011*	*05/05/2011*	*05/05/2011*
		Duplicate		
Parameters	***Units***			
Volatile Organic Compounds (Cont'd.)				
TOLUENE	µg/L	0.3 U	0.3 U	0.3 U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.3 U	0.3 U	0.3 U
TRICHLOROETHYLENE (TCE)	µg/L	8.7	0.3 U	0.3 U
VINYL CHLORIDE	µg/L	3.5 J	0.3 U	0.3 U
Metals				
IRON	µg/L	414	205	6580
IRON (dissolved)	µg/L	177	173	230
POTASSIUM	µg/L	5230	4260	2680
POTASSIUM (dissolved)	µg/L	5600	4480	1970 J
ZINC	µg/L	1830	4.6 J	43.1
ZINC (dissolved)	µg/L	453	12.3 J	3.6 U
Wet Chemistry				
NITROGEN, AMMONIA (AS N)	mg/L	0.004 UJ	0.4 J	0.004 UJ
NITROGEN, KJELDAHL, TOTAL	mg/L	0.09 U	0.59	0.37
NITROGEN, NITRITE	mg/L	0.003 U	0.003 U	0.003 U

Notes:

J - Estimated.

U - Not detected.

UJ - Not detected, estimated reporting limit.

TABLE 3

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE RECOVERIES
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
MAY 2011

Analyte	*Spike ID*	*MS Recovery (percent)*	*Control Limits (percent)*	*Associated Samples*	*Qualified Sample Results*	*Units*
Ammonia, as N	WG-5513-050511-001	66	90 - 110	WG-5513-050511-001	0.4 J	mg/L
				WG-5513-050511-002	0.383 J	mg/L
				WG-5513-050511-003	0.004 UJ	mg/L
				WG-5513-050511-004	2.87 J	mg/L
				WG-5513-050511-005	0.786 J	mg/L
				WG-5513-050511-006	0.004 UJ	mg/L
				WG-5513-050511-007	0.004 UJ	mg/L
				WG-5513-050511-008	0.004 UJ	mg/L

Notes:

J Estimated.
MS Matrix Spike.
UJ Not detected, estimated reporting limit.

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
NF Office

SHIPPED TO (Laboratory Name): Columbia

REFERENCE NUMBER: 5513-02
UCAR - Annual GW Sampling

SAMPLER'S SIGNATURE: David Tyran PRINTED NAME: David Tyran

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	VOCs	NH_3	TKN	NO_2	Total Metals	Diss. Metals	REMARKS
	5511	1035	WG-5513-050511-001	Water	17	9	2	2	2	2		MS/MSD
		1215	WG-5513-050511-002		6	2	1	1	1	1		
		1325	WG-5513-050311-003		6	2	1	1	1	1		
		1415	WG-5513-050511-004		7	3	1	1	1	1		
		1515	WG-5513-050511-005		7	3	1	1	1	1		
		1540	WG-5513-050511-006		6	2	1	1	1	1		
		1645	WG-5513-050511-007		7	3	1	1	1	1		
		1620	WG-5513-050511-008		7	3	1	1	1	1		
			TB-5513-050511-	Lab Water	3	3						

DST

R1102521
Conestoga-Rovers & Associates, Inc.
UCAR Annual

TOTAL NUMBER OF CONTAINERS: 66

HEALTH/CHEMICAL HAZARDS:

RELINQUISHED BY: ① David Tyran	DATE: 5-6-11 TIME: 0700	RECEIVED BY: ①	DATE: TIME:
RELINQUISHED BY: ②	DATE: TIME:	RECEIVED BY: ②	DATE: TIME:
RELINQUISHED BY: ③	DATE: TIME:	RECEIVED BY: ③	DATE: TIME:

METHOD OF SHIPMENT: Courier WAY BILL No.

White —Fully Executed Copy
Yellow —Receiving Laboratory Copy
Pink —Shipper Copy
Goldenrod —Sampler Copy

SAMPLE TEAM: D. Tyran

RECEIVED FOR LABORATORY BY: [signature]
DATE: 5/6/11 TIME: 1200

Nº CRA 17392

1001 (D) APR 28/97(NF) REV. 0 (F-15)

h0000

Cooler Receipt And Preservation Check Form

Project/Client CRA Folder Number 311252l

Cooler received on 5/6/11 by: DM COURIER: ~~CAS~~ UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	~~YES~~	NO		
2.	Were custody papers properly filled out (ink, signed, etc.)?	~~YES~~	NO		
3.	Did all bottles arrive in good condition (unbroken)?	~~YES~~	NO		
4.	Did ~~VOA~~ vials, Alkalinity, or Sulfide have significant* air bubbles?	~~YES~~	NO	N/A	
5.	Were ~~Ice~~ or Ice packs present?	~~YES~~	NO		
6.	Where did the bottles originate?	CAS/~~ROC~~, CLIENT			
7.	Temperature of cooler(s) upon receipt:	3.2°			
	Is the temperature within 0° - 6° C?:	~~Yes~~	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 5/6/11/1216

Thermometer ID: IR GUN#3 / ~~IR GUN#4~~ Reading From: ~~Temp Blank~~ / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

PC Secondary Review: Nathan

Cooler Breakdown: Date: 5/6/11 Time: 1310 by: BD

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO	
2.	Did all bottle labels and tags agree with custody papers?	YES	NO	
3.	Were correct containers used for the tests indicated?	YES	NO	
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated	N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		BDB26108F	2/12				
≤2	H_2SO_4	✓		WC1030014	2/12				
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	4110020	1/12				

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 022111-24, 070905102HA17, 0-235-003 BD 5/6/11

Other Comments: 2 vials for the trip blank had significant air bubbles.

PC Secondary Review: Nathan

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

Daily Log

5.5.11
Calibrate YSI Meter Inst. Control # NF04441
pH 7.00 Solution Lot # 20032 exp 2/2012
Before 6.64 After 6.98
pH 4.00 Solution Lot# 2002034 exp 1/2012
Before ~~4.00~~ 3.89 After 4.00
Turb 0 DI water Before 0.1 After 0.0
Turb 100 solution Lot # A0252 exp 9/2012
Before 105.2 After 100.0
Cond 4.49 Solution Lot # C037568 exp 7/28/12
Before 4.2.45 After 4.503

Sunny 44-50°F winds SW 10-~~8~~15
0805 on-site meet Bob Bucci get site keys
Start w/L Round
0925 complete w/L's Dry out MW 3 Purge & Sample GW 9B, BW 2, 3, 4, 1, GW 8B
Sample MW 3
Trip Blank = TB-5513-050511

1716 off-site

Hydraulic Monitoring

Date 5.5.11 Crew DJT
Project # 5513-02

Well #	Time	w/L	Sounded Depth
MW 3	0849	2.94	15.28
BW 1	0830	12.66	29.03
BW 2	0914	7.84	24.73
BW 3	0835	3.34	23.58
BW 4	0829	4.79	21.25
GW 8B	0814	6.00	29.50
GW 9B	0859	10.16	31.98
MW 1	0824	9.27	23.40
MW 2	0910	17.00	24.70
BW 5	0843	0.75	26.05
BW 6	0906	11.98	26.28

Inst. Control #

w/L Meter NF06121

Dave J Tynan

MW-3

Date 5.5.11 Crew DJT
Project # 5513.02
Condition Good
Depth 2" 0-15.25
Initial w/L 2.94
Vol. Calc 15.25-2.94=12.31x.16=2.0

Method Dedicated Teflon Bailer

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
0949	2.0	6.78	0.467	8.42	486

Well Dry @ 3.0 gallons

Initial w/Q Clear, Colorless

Final w/Q Cloudy Red/Brown

Final w/L Dry

Sample Record

Date 5.5.11
Crew DJT
Method Dedicated Teflon Bailer

Vol/Analysis See pg 28 (C)

Sample Time 1620
Sample ID MW-5513-050511-008

w/Q Slightly cloudy, Light Brown

pH Cond Temp Turb
NH ——————————→

C of C # 17392

Inst. Control #'s
w/L Meter NF044441
YSI NF044441

Dave J Tyra

GW-9B

Date 5-5-11 Crew DJT
Project # 5513-02
Condition Good
Depth 3" 0-31.7
Initial w/L 10.16
Vol. Calc 31.7 - 10.16 = 21.54 x .37 = 8.0

Purge Method Mini-Monsoon

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1019	8.0	6.46	2.443	9.55	3.3
1023	16.0	6.44	2.471	9.42	0.7
1028	24.0	6.45	2.468	9.52	0.7

Initial w/Q Clear, Colorless

Final w/Q Same

Final w/L 19.28

MS/MSD

Sample Record

Date 5.5.11
Crew DJT
Method Dedicated Teflon Bailer

Vol/Analysis see pg 28 (C) x 3

Sample Time 1035
Sample ID GW-5513-050511-001

W/Q Clear, colorless

pH	Cond	Temp °C	Turb
6.57	2.462	9.69	1.3

CofC # 173982

Inst Control #'s
W/L Meter 14F06121
YSI NF04441

Dave Jones

BW-2

Date 5.5.11 Crew DJT
Project # 5513-02
Condition Good
Depth 4" 0-21.1 3" 21.1 - 37.1
Initial w/L 7.84
Vol Calc. 21.1 - 7.84 = 13.26 x .65 = 8.6
37.1 - 21.1 = 16 x .37 = 5.9 + 8.6 = 14.5
Purge Method Mini - Monsoon

Purge Record

Time	Vol	pH	Cond	Temp°c	Turb
1150	14.5	7.32	2.488	10.20	43.7
1155	29.0	6.68	2.405	9.62	5.5
1201	43.5	6.56	2.374	9.53	2.4

Initial w/Q Cloudy Brown

Final w/Q clear, colorless
Slight Chemical odor

Final w/L 850

Sample Record

Date 5.5.11
Crew DJT
Method Dedicated Teflon Bailer

Vol/Analysis See pg 28 (C)
only 2x40ml VOA

Sample Time 1215
Sample ID WG-5513-050511-002

w/Q Same

pH	Cond	Temp°c	Turb
6.64	2.358	9.35	10.6

CofC# 17392

Inst. Control #'s
w/L Meter NF06121
YSI NF04441

Dave J Tyler

GW-8B

Date 5.5.11 Crew DJT
Project # 5513-02
Condition Good
Depth 3" 0-29.5
Initial W/L 6.00
Vol. Calc. 29.5-6 = 23.5 x .37 = 8.7

Purge Method Mini-Monsoon

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1533	8.7	8.41	1.728	9.17	24.7
1537	17.4	7.84	1.772	9.21	128.9
1546	26.1	7.00	1.757	8.98	72.8

well Dry @ 28 gallons

Initial W/Q Clear, Colorless

Final W/Q Cloudy gray

Final W/L 29

DUP

Sample Record

Date 5.5.11
Crew DJT
Method Dedicated Teflon Bailer

Vol / Analysis See pg 28 (C) x 2
only 2 x 40 ml VOC for Reg

Sample Time 1540
Sample ID WG-5513-050511-006
Blind Dup WG-5513-050511-007 (1645)

W/Q Slightly cloudy, light gray

pH	Cond	Temp °C	Turb
6.85	1.738	8.70	36.7

C of C# 17392

Inst Control #'s
W/L Meter NF06121
YSI NF04441

Dave Tyran

BW-1

Date 5.5.11 Crew DJT
Project # 5513-02
Condition Good
Depth 4" 0-20.9 3" 20.9-35.9
Initial w/L 12.66
Vol. Calc. 20.9-12.66 = 8.24 x .65 = 5.4
35.9-20.9 = 15 x .37 = 5.6 + 5.4 = 11.0

Purge Method Mini-Monsoon

Purge Record

Time	Vol	pH	Cond	Temp°C	Turb
1447	11	7.79	1.760	10.65	79.8
1451	22	7.28	1.702	9.66	14.6
1455	33	7.04	1.696	9.30	9.5

Initial w/Q Slightly cloudy Dark gray

Final w/Q Clear, colorless

Final w/L 14.66

Sample Record

Date 5.5.11
Crew DJT
Method dedicated Teflon Bailer

Vol/Analysis See pg 28 ©

Sample Time 1515
Sample ID WG-5513-050511-005

w/Q Clear, colorless

pH	Cond	Temp°C	Turb
6.97	1.672	9.29	20.7

CofC# 17392

Inst. Control #'s
w/L Meter NF06121
YSI NF04141

David Tyra

BW-3

Date 5.5.11 Crew DJT
Project # ~~6~~ (557) 5513-02
Condition Good
Depth 4" 0-9.7 3" 9.7-23.45
Initial w/L 3.34
Vol. Calc 9.7-3.34=6.36x.65=4.1
23.45-9.7=13.75x.37=5.1+4.1=9.2

Purge Method Mini-Monsoon

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1307	9.2	8.27	0.686	8.08	27.1
1310	18.4	7.72	0.703	7.39	2.2
1314	27.6	7.28	0.717	7.27	1.9

Initial w/Q Clear, Colorless

Final w/Q Same

Final w/L 3.51

Sample Record

Date 5.5.11
Crew DJT
Project # 5513-02
Method Dedicated Teflon Bailer

Vol/Analysis see pg 28 (C)
only 2x40ml VOCs

Sample Time 1325
Sample ID GW-5513-050511-003

w/Q Same

pH	Cond	Temp °C	Turb
6.91	0.725	7.41	1.9

CofC # 17392

Inst. Control #'s
w/L Meter NF06121
YSI NF04441

Dave J Tyra

BW-4

Date 5.5.11 Crew DJT
Project # 5513-02
Condition Good
Depth 4" 0-13.9 3" 13.9-27.5
Initial w/L 4.79
Vol. Calc. 13.9-4.79 = 9.11 x .65 = 5.9
27.5-13.9 = 13.6 x .37 = 5 + 5.9 = 10.9

Purge Method Mini-Monsoon

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1354	10.9	7.08	1.472	9.55	37.4
1358	21.8	6.91	1.529	8.85	78
1401	32.7	6.82	1.535	8.75	44.3

Initial w/Q Cloudy Red/Brown

Final w/Q Slightly Cloudy, Brown

Final w/L 6.45

Sample Record

Date 5.5.11
Crew DJT
Method Dedicated Teflon Bailer

Vol/Analysis See pg 28 (C)

Sample Time 1415
Sample ID WG-5513-050511-004

w/Q Slightly cloudy Brown

pH	Cond	Temp °C	Turb
6.78	1.548	9.10	21.3

CofC # 17392

Inst. Control #'s
w/L Meter NF06121
YSI NIF04441

Dave S Tyson

Daily Safety Meeting

5-5-11

Presented By D. Tyran

Site is very wet watch footing and drive only on solid areas so as not to tear up the site.

Use garden wagon

David J Tyran

Columbia Analytical Services™ 1 Mustard Street, Suite 250 | Rochester, NY 14609 | 585-288-5380 | 585-288-8475 fax | www.caslab.com

May 27, 2011 Service Request No: R1102521

Ms. Susan Scrocchi
Conestoga-Rovers & Associates , Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: UCAR Annual/5513-20

Dear Ms. Scrocchi:

Enclosed are the results of the sample(s) submitted to our laboratory on May 6, 2011. For your reference, these analyses have been assigned our service request number **R1102521**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 131. You may also contact me via email at DPatton@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

DPatton

Deb Patton
Project Manager

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Conestoga Rovers and Associates	Service Request No.:	R1102521
Project:	UCAR	Date Received:	5/6/11
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Eight water samples and one Trip Blank were received for analysis at Columbia Analytical Services on 5/6/11. The samples were received in good condition consistent with the accompanying chain of custody form enclosed. The samples were received at 3.2°C within the 0-6°C temperature guidelines.

Wet Chemistry & Metals

Dissolved metals were field filtered.

The Continuing Calibration Blank (CCB5) contained a low level hit of Potassium and has been flagged with a "J".

Site QC was requested on sample WG-5513-050511-001 (R1102521-001 and -002). The Matrix Spike for Ammonia was outside of the control limits low and has been flagged with a "*". The Replicate and all other QC was within limits for the day.

No other analytical or quality control problems were encountered during analysis.

Volatile Organics

The Continuing Calibration Verification (CCV) standard exceeded 20% difference criteria for Carbon Disulfide, Chloroethane and Chloromethane on 5/11/11. All detected concentration for these compounds in samples associated with this CCV should be considered as estimated.

Sample WG-5513-050511-004 (R1102521-007) exceeded the calibration range of the instrument for Total 1,2-Dichloroethene and Trichloroethene and have been flagged with an "E". The sample was repeated at a dilution and flagged with a "D". Both sets of data have been reported.

Site QC was requested on sample WG-5513-050511-001 (R1102521-001). The Matrix Spike was outside of the control limits for Chloroethane, 1,1-Dichloroethane and 1,2-Dichloropropane and have been flagged with a "*". Duplicate Matrix Spikes and all other QC were within limits for the day and no data was affected.

No other analytical or quality control problems were encountered during analysis.

Approved by _____ Date 5/27/11

Columbia Analytical Services™

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
NF Office

SHIPPED TO (Laboratory Name): Columbia

REFERENCE NUMBER: 5513-02
UCAR - Annual GW Sampling

SAMPLER'S SIGNATURE: Dave Tyran PRINTED NAME: David Tyran

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	PARAMETERS: VOCs	NH3-TKN	NO2	Total Metals	Diss. Metals				REMARKS
	5511	1035	WG-5513-050511-001	Water	17	9	2	2	2	2				MS/MSD
		1215	WG-5513-050511-002		6	2	1	1	1	1				
		1325	WG-5513-050311-003		6	2	1	1	1	1				
		1415	WG-5513-050511-004		7	3	1	1	1	1				
		1515	WG-5513-050511-005		7	3	1	1	1	1				
		1540	WG-5513-050511-006		6	2	1	1	1	1				
		1645	WG-5513-050511-007		7	3	1	1	1	1				
		1620	WG-5513-050511-008		7	3	1	1	1	1				
			TB-5513-050511-	Lab Water	3	3								

-DUP

TOTAL NUMBER OF CONTAINERS: 66

HEALTH/CHEMICAL HAZARDS:

RELINQUISHED BY: ① Dave Tyran	DATE: 5.6.11 TIME: 0700	RECEIVED BY: ①	DATE: TIME:
RELINQUISHED BY: ②	DATE: TIME:	RECEIVED BY: ②	DATE: TIME:
RELINQUISHED BY: ③	DATE: TIME:	RECEIVED BY: ③	DATE: TIME:

METHOD OF SHIPMENT: Courier WAY BILL No.

White —Fully Executed Copy
Yellow —Receiving Laboratory Copy
Pink —Shipper Copy
Goldenrod —Sampler Copy

SAMPLE TEAM: D. Tyran

RECEIVED FOR LABORATORY BY: [signature] DATE: 5/6/11 TIME: 1200

Nº CRA 17392

1001 (D) APR 28/97(NF) REV. 0 (F-15)

n0000

Cooler Receipt And Preservation Check Form

Project/Client CRA Folder Number 3112521

Cooler received on 5/6/11 by: DPW COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 3.2°

Is the temperature within 0° - 6° C?:	Yes	Yes	Yes	Yes	Yes
If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 5/6/11 / 1216

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples:

PC Secondary Review: [signature]

Cooler Breakdown: Date: 5/6/11 Time: 1310 by: BD

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	
≥12	NaOH									Yes = All samples OK
≤2	HNO_3	✓		BPB26N8F	2/12					No = Samples were preserved at lab as listed
≤2	H_2SO_4	✓		WC1530O1A	2/12					
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid						
	$Na_2S_2O_3$	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet				PM OK to Adjust:
	Zn Aceta	-	-							
	HCl	*	*	4110020	1/12					

Bottle lot numbers: 022111-2H, 0700510-2AD, 0-235003 (BD 5/6/11)

Other Comments: 2 vials for the trip blank had significant air bubbles.

PC Secondary Review: [signature]

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

H:\SMODOCS\Cooler Receipt 3.doc

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1035
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 20:48
Sample Name:	WG-5513-050511-001	**Units:**	µg/L
Lab Code:	R1102521-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1085.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	1.9	J	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1035
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 20:48
Sample Name:	WG-5513-050511-001	**Units:**	Percent
Lab Code:	R1102521-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1085.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	85-122	5/10/11 20:48	
Dibromofluoromethane	104	89-119	5/10/11 20:48	
Toluene-d8	105	87-121	5/10/11 20:48	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1215
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 19:34
Sample Name:	WG-5513-050511-002	**Units:**	µg/L
Lab Code:	R1102521-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1083.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	**2.4**	J	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	**0.66**	J	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	**0.94**	J	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1215
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 19:34
Sample Name:	WG-5513-050511-002	**Units:**	Percent
Lab Code:	R1102521-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1083.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	85-122	5/10/11 19:34	
Dibromofluoromethane	108	89-119	5/10/11 19:34	
Toluene-d8	102	87-121	5/10/11 19:34	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1325
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 20:11
Sample Name:	WG-5513-050511-003 Bu	**Units:**	µg/L
Lab Code:	R1102521-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1084.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**0.98**	J	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**0.88**	J	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	**0.95**	J	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1325
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/10/11 20:11
Sample Name:	WG-5513-050511-003	**Units:**	Percent
Lab Code:	R1102521-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1084.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85-122	5/10/11 20:11	
Dibromofluoromethane	101	89-119	5/10/11 20:11	
Toluene-d8	100	87-121	5/10/11 20:11	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1415
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 17:16
Sample Name:	WG-5513-050511-004	**Units:**	µg/L
Lab Code:	R1102521-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1102.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.1	J	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.2	J	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	910	E	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	0.52	J	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.6		5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	92		5.0	0.42	
108-88-3	Toluene	0.51	J	5.0	0.30	
79-01-6	Trichloroethene (TCE)	420	E	5.0	0.30	
75-01-4	Vinyl Chloride	190		5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1415
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 17:16
Sample Name:	WG-5513-050511-004	**Units:**	Percent
Lab Code:	R1102521-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1102.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	85-122	5/11/11 17:16	
Dibromofluoromethane	103	89-119	5/11/11 17:16	
Toluene-d8	99	87-121	5/11/11 17:16	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1415
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/13/11 14:38
Sample Name:	WG-5513-050511-004	**Units:**	µg/L
Lab Code:	R1102521-007	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	246053
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051311\J1145.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	1.5	
79-34-5	1,1,2,2-Tetrachloroethane	**4.1**	DJ	25	1.5	
79-00-5	1,1,2-Trichloroethane	25	U	25	1.5	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	1.5	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**4.1**	DJ	25	1.9	
107-06-2	1,2-Dichloroethane	25	U	25	1.5	
540-59-0	1,2-Dichloroethene, Total	**1000**	D	50	3.0	
78-87-5	1,2-Dichloropropane	25	U	25	3.4	
78-93-3	2-Butanone (MEK)	50	U	50	5.0	
591-78-6	2-Hexanone	50	U	50	2.0	
108-10-1	4-Methyl-2-pentanone	50	U	50	1.8	
67-64-1	Acetone	**9.3**	DJ	100	8.0	
71-43-2	Benzene	25	U	25	1.6	
75-27-4	Bromodichloromethane	25	U	25	2.1	
75-25-2	Bromoform	25	U	25	1.5	
74-83-9	Bromomethane	25	U	25	2.0	
75-15-0	Carbon Disulfide	50	U	50	1.8	
56-23-5	Carbon Tetrachloride	25	U	25	1.8	
108-90-7	Chlorobenzene	25	U	25	1.5	
75-00-3	Chloroethane	25	U	25	1.5	
67-66-3	Chloroform	**5.4**	DJ	25	1.5	
74-87-3	Chloromethane	25	U	25	2.4	
124-48-1	Dibromochloromethane	25	U	25	1.5	
75-09-2	Methylene Chloride	25	U	25	1.5	
100-41-4	Ethylbenzene	25	U	25	2.1	
100-42-5	Styrene	25	U	25	1.8	
127-18-4	Tetrachloroethene (PCE)	**76**	D	25	2.1	
108-88-3	Toluene	25	U	25	1.5	
79-01-6	Trichloroethene (TCE)	**390**	D	25	1.5	
75-01-4	Vinyl Chloride	**190**	D	25	1.5	
1330-20-7	Xylenes, Total	25	U	25	6.0	
10061-01-5	cis-1,3-Dichloropropene	25	U	25	1.5	
10061-02-6	trans-1,3-Dichloropropene	25	U	25	1.5	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1415
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/13/11 14:38
Sample Name:	WG-5513-050511-004	**Units:**	Percent
Lab Code:	R1102521-007	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	246053
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051311\J1145.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	5

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	85-122	5/13/11 14:38	
Dibromofluoromethane	101	89-119	5/13/11 14:38	
Toluene-d8	95	87-121	5/13/11 14:38	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1515
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/12/11 17:39
Sample Name:	WG-5513-050511-005	**Units:**	µg/L
Lab Code:	R1102521-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245839
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051211\J1123.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	**0.79**	J	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	**1.8**	J	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	**0.42**	J	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	**10**		5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	**0.81**	J	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1515
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/12/11 17:39
Sample Name:	WG-5513-050511-005	**Units:**	Percent
Lab Code:	R1102521-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245839
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051211\J1123.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	5/12/11 17:39	
Dibromofluoromethane	98	89-119	5/12/11 17:39	
Toluene-d8	102	87-121	5/12/11 17:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1540
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 18:31
Sample Name:	WG-5513-050511-006	**Units:**	µg/L
Lab Code:	R1102521-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1104.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	**19**		10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	**1.9**	J	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**8.2**		5.0	0.30	
75-01-4	Vinyl Chloride	**2.9**	J	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1540
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 18:31
Sample Name:	WG-5513-050511-006	**Units:**	Percent
Lab Code:	R1102521-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1104.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	85-122	5/11/11 18:31	
Dibromofluoromethane	108	89-119	5/11/11 18:31	
Toluene-d8	104	87-121	5/11/11 18:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1645
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 19:08
Sample Name:	WG-5513-050511-007	**Units:**	µg/L
Lab Code:	R1102521-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\U1105.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	**20**		10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	**1.8**	J	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	**8.7**		5.0	0.30	
75-01-4	Vinyl Chloride	**3.5**	J	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1645
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 19:08
Sample Name:	WG-5513-050511-007	**Units:**	Percent
Lab Code:	R1102521-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\U1105.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	85-122	5/11/11 19:08	
Dibromofluoromethane	103	89-119	5/11/11 19:08	
Toluene-d8	99	87-121	5/11/11 19:08	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1620
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 19:45
Sample Name:	WG-5513-050511-008	**Units:**	µg/L
Lab Code:	R1102521-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1106.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1620
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 19:45
Sample Name:	WG-5513-050511-008	**Units:**	Percent
Lab Code:	R1102521-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1106.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	85-122	5/11/11 19:45	
Dibromofluoromethane	100	89-119	5/11/11 19:45	
Toluene-d8	98	87-121	5/11/11 19:45	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 20:22
Sample Name:	TB-5513-050511	**Units:**	µg/L
Lab Code:	R1102521-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1107.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11
Sample Matrix:	Water	**Date Received:**	5/ 6/11
		Date Analyzed:	5/11/11 20:22
Sample Name:	TB-5513-050511	**Units:**	Percent
Lab Code:	R1102521-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1107.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85-122	5/11/11 20:22	
Dibromofluoromethane	96	89-119	5/11/11 20:22	
Toluene-d8	99	87-121	5/11/11 20:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/10/11 13:22
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1104296-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1073.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/10/11 13:22
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1104296-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245416
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051011\J1073.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	5/10/11 13:22	
Dibromofluoromethane	95	89-119	5/10/11 13:22	
Toluene-d8	102	87-121	5/10/11 13:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/11/11 14:47
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1104344-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1098.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/11/11 14:47
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1104344-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245558
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051111\J1098.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	5/11/11 14:47	
Dibromofluoromethane	101	89-119	5/11/11 14:47	
Toluene-d8	103	87-121	5/11/11 14:47	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/12/11 16:24
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1104437-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245839
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051211\U1121.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/12/11 16:24
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1104437-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	245839
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051211\J1121.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	5/12/11 16:24	
Dibromofluoromethane	98	89-119	5/12/11 16:24	
Toluene-d8	100	87-121	5/12/11 16:24	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/13/11 14:01
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1104496-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	246053
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051311\U1144.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.30	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.30	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.30	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.30	
540-59-0	1,2-Dichloroethene, Total	10	U	10	0.60	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.66	
78-93-3	2-Butanone (MEK)	10	U	10	1.0	
591-78-6	2-Hexanone	10	U	10	0.40	
108-10-1	4-Methyl-2-pentanone	10	U	10	0.34	
67-64-1	Acetone	20	U	20	1.6	
71-43-2	Benzene	5.0	U	5.0	0.31	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.41	
75-25-2	Bromoform	5.0	U	5.0	0.30	
74-83-9	Bromomethane	5.0	U	5.0	0.40	
75-15-0	Carbon Disulfide	10	U	10	0.35	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.36	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	0.30	
67-66-3	Chloroform	5.0	U	5.0	0.30	
74-87-3	Chloromethane	5.0	U	5.0	0.46	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.30	
75-09-2	Methylene Chloride	5.0	U	5.0	0.30	
100-41-4	Ethylbenzene	5.0	U	5.0	0.42	
100-42-5	Styrene	5.0	U	5.0	0.35	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	0.42	
108-88-3	Toluene	5.0	U	5.0	0.30	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	0.30	
75-01-4	Vinyl Chloride	5.0	U	5.0	0.30	
1330-20-7	Xylenes, Total	5.0	U	5.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.30	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/13/11 14:01
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1104496-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	246053
Data File Name:	J:\ACQUDATA\MSVOA7\DATA\051311\J1144.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	85-122	5/13/11 14:01	
Dibromofluoromethane	102	89-119	5/13/11 14:01	
Toluene-d8	102	87-121	5/13/11 14:01	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/5/11
Sample Matrix:	Water	**Date Received:**	5/6/11
		Date Analyzed:	5/10/11

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	WG-5513-050511-001	**Units:**	µg/L
Lab Code:	R1102521-001	**Basis:**	NA

Analytical Method: 8260C

		WG-5513-050511-001MS Matrix Spike RQ1104296-05				WG-5513-050511-001DMS Duplicate Matrix Spike RQ1104296-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	ND	60.9	50.0	122		50.8	50.0	102	75 - 138	18	30
1,1,2,2-Tetrachloroethane	ND	49.0	50.0	98		45.3	50.0	91	70 - 133	8	30
1,1,2-Trichloroethane	ND	56.1	50.0	112		47.3	50.0	95	76 - 126	17	30
1,1-Dichloroethane (1,1-DCA)	ND	70.9	50.0	142	*	58.9	50.0	118	75 - 131	18	30
1,1-Dichloroethene (1,1-DCE)	ND	56.0	50.0	112		52.3	50.0	105	75 - 134	7	30
1,2-Dichloroethane	ND	60.9	50.0	122		52.9	50.0	106	75 - 129	14	30
1,2-Dichloroethene, Total	ND	118	100	118		103	100	103	73 - 131	13	30
1,2-Dichloropropane	ND	66.1	50.0	132	*	57.9	50.0	116	79 - 129	13	30
2-Butanone (MEK)	ND	55.9	50.0	112		52.8	50.0	106	50 - 140	6	30
2-Hexanone	ND	47.4	50.0	95		50.9	50.0	102	54 - 139	7	30
4-Methyl-2-pentanone	ND	48.3	50.0	97		49.1	50.0	98	57 - 138	2	30
Acetone	1.9	58.8	50.0	114		56.1	50.0	109	41 - 155	5	30
Benzene	ND	58.0	50.0	116		51.8	50.0	104	79 - 128	11	30
Bromodichloromethane	ND	57.8	50.0	116		49.3	50.0	99	78 - 132	16	30
Bromoform	ND	47.4	50.0	95		44.6	50.0	89	63 - 133	6	30
Bromomethane	ND	52.6	50.0	105		48.8	50.0	98	39 - 152	7	30
Carbon Disulfide	ND	46.8	50.0	94		50.5	50.0	101	34 - 154	8	30
Carbon Tetrachloride	ND	49.8	50.0	100		49.4	50.0	99	73 - 145	<1	30
Chlorobenzene	ND	52.9	50.0	106		50.5	50.0	101	80 - 126	5	30
Chloroethane	ND	73.6	50.0	147	*	62.4	50.0	125	68 - 141	17	30
Chloroform	ND	63.9	50.0	128		56.0	50.0	112	75 - 134	13	30
Chloromethane	ND	61.4	50.0	123		61.4	50.0	123	56 - 149	<1	30
Dibromochloromethane	ND	45.3	50.0	91		41.8	50.0	84	71 - 137	8	30
Methylene Chloride	ND	63.0	50.0	126		52.9	50.0	106	71 - 131	17	30
Ethylbenzene	ND	54.7	50.0	109		51.6	50.0	103	77 - 133	6	30
Styrene	ND	51.3	50.0	103		48.3	50.0	97	38 - 165	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1102521 SDG No.: WG-5513-050

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
WG-5513-050511-001	R1102521-001
WG-5513-050511-001D	R1102521-001D
WG-5513-050511-001S	R1102521-001S
WG-5513-050511-001 Diss	R1102521-002
WG-5513-050511-001 DissD	R1102521-002D
WG-5513-050511-001 DissS	R1102521-002S
WG-5513-050511-002	R1102521-003
WG-5513-050511-002 Diss	R1102521-004
WG-5513-050511-003	R1102521-005
WG-5513-050511-003 Diss	R1102521-006
WG-5513-050511-004	R1102521-007
WG-5513-050511-004 Diss	R1102521-008
WG-5513-050511-005	R1102521-009
WG-5513-050511-005 Diss	R1102521-010
WG-5513-050511-006	R1102521-011
WG-5513-050511-006 Diss	R1102521-012
WG-5513-050511-007	R1102521-013
WG-5513-050511-007 Diss	R1102521-014
WG-5513-050511-008	R1102521-015
WG-5513-050511-008 Diss	R1102521-016

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Michael K. Perry Name: Michael Perry

Date: 5/27/11 Title: Laboratory Director

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-001

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-001

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	205			P
7440-09-7	Potassium	4260			P
7440-66-6	Zinc	4.6	J		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-001 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-002

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	173			P
7440-09-7	Potassium	4480			P
7440-66-6	Zinc	12.3	J		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-002

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-003

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	7790			P
7440-09-7	Potassium	5980			P
7440-66-6	Zinc	1320			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-002 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-004

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1720			P
7440-09-7	Potassium	6220			P
7440-66-6	Zinc	132			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-003

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-005

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	350			P
7440-09-7	Potassium	1180	J		P
7440-66-6	Zinc	648			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-003 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-006

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	179			P
7440-09-7	Potassium	1170	J		P
7440-66-6	Zinc	509			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-004

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-007

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	10100			P
7440-09-7	Potassium	16800			P
7440-66-6	Zinc	1250			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-004 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-008

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	4590			P
7440-09-7	Potassium	16600			P
7440-66-6	Zinc	203			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-005

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-009

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1910			P
7440-09-7	Potassium	6460			P
7440-66-6	Zinc	9230			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-005 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-010

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1130			P
7440-09-7	Potassium	6100			P
7440-66-6	Zinc	59.5			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-006

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-011

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	470			P
7440-09-7	Potassium	5680			P
7440-66-6	Zinc	1780			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-006 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-012

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	180			P
7440-09-7	Potassium	5300			P
7440-66-6	Zinc	454			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments: _____

Columbia Analytical Services

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.: WG-5513-050511-007

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-013

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	414			P
7440-09-7	Potassium	5230			P
7440-66-6	Zinc	1830			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-007 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-014

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	177			P
7440-09-7	Potassium	5600			P
7440-66-6	Zinc	453			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-008

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-015

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	6580			P
7440-09-7	Potassium	2680			P
7440-66-6	Zinc	43.1			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-050511-008 Diss

Contract: R1102521

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0505

Matrix (soil/water): WATER Lab Sample ID: R1102521-016

Level (low/med): LOW Date Received: 5/6/2011

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	230			P
7440-09-7	Potassium	1970	J		P
7440-66-6	Zinc	3.6	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1035
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-001		
Lab Code:	R1102521-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.400		mg/L	0.050	1	NA	5/9/11 12:10	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.59		mg/L	0.20	1	5/19/11	5/20/11 11:15	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1215
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-002		
Lab Code:	R1102521-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	**0.383**		mg/L	0.050	1	NA	5/9/11 12:13	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.02**		mg/L	0.20	1	5/19/11	5/20/11 11:17	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1325
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-003		
Lab Code:	R1102521-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	5/9/11 12:14	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	5/19/11	5/20/11 11:18	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1415
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-004		
Lab Code:	R1102521-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	2.87		mg/L	0.10	2	NA	5/9/11 13:07	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 14:21	
Nitrogen, Total Kjeldahl (TKN)	351.2	3.49		mg/L	0.20	1	5/19/11	5/20/11 11:18	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1515
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-005		
Lab Code:	R1102521-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.786		mg/L	0.050	1	NA	5/9/11 12:18	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.21		mg/L	0.20	1	5/19/11	5/20/11 11:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1540
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-006		
Lab Code:	R1102521-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	5/9/11 12:19	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	5/19/11	5/20/11 11:21	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1645
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-007		
Lab Code:	R1102521-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	5/9/11 12:20	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	5/19/11	5/20/11 11:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	5/ 5/11 1620
Sample Matrix:	Water	**Date Received:**	5/ 6/11
Sample Name:	WG-5513-050511-008		
Lab Code:	R1102521-015	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	5/9/11 12:49	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 14:21	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.37		mg/L	0.20	1	5/19/11	5/20/11 11:23	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1102521
Project:	UCAR Annual/5513-20	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1102521-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	5/9/11 11:30	
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	5/6/11 13:57	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	5/19/11	5/20/11 11:13	