32NO3. GW73

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32NO3 REL FOIL UNREL

Robert Bucci, Consultant
3344 Wildwood Dr.
Niagara Falls, New York 14304
Phone 716 297-6772 Cell & 716 628-8208
Email: nia3344@verizon.net

November 15, 2010

Mr. Mark Hans, PE
Regional Solid Materials Engineer
NYS Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

SUBJECT: UCAR Republic Landfill #32NO3

Dear Mr. Hans,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the New York State Department of Environmental Conservation Region 9 Office.

If you have any questions please feel free to call me at (716 628-8208.

Very truly yours,

Robert Bucci
Consultant

R. Bucci
enc.

Robert Bucci, Consultant
3344 Wildwood Dr.
Niagara Falls, New York 14304
Phone 716 297-6772 Cell & 716 628-8208
Email: nia3344@verizon.net

November 15, 2010 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 2009
UCAR Republic SWMF #32N03

The annual monitoring event for the above-referenced Site was conducted on Sept. 07, 2010. 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. A sample collection and analysis summary is presented in Table 1 and water level elevations measured prior to well purging are presented in Table 2. The analytical laboratory report for this sampling event is enclosed and the data are summarized in Table 3.

November 15, 2010 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 March of 2011. 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

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: Sheri Finn/bjw/3

DATE: October 22, 2010

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
September 2010

INTRODUCTION

Eight groundwater samples, including one field duplicate sample were collected during September 2010 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 with the exception of nitrite analysis, which has a 48 hour holding time. The samples were received at the laboratory 2 days after collection. All associated nitrite results were qualified as estimated (see Table 3).

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.

LABORATORY DUPLICATE ANALYSES

Laboratory duplicates were performed for inorganic analyses. All results were within laboratory control limits showing acceptable analytical precision with the exception of dissolved iron analysis. The associated sample results were qualified as estimated (see Table 4).

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.

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

Sent via email

TO:	Jim Kay	REF. NO.:	005513
FROM:	Dave Tyran/adh/2	DATE:	September 8, 2010
RE:	**Annual Groundwater Sampling**		

INTRODUCTION

In accordance with Conestoga-Rovers & Associates (CRA) Field Sampling Plan (FSP) Post-Closure Monitoring Program for UCAR Carbon's Solid Waste Management Unit (SWMU) No. 32NO3, the Annual groundwater sampling event was performed on September 7, 2010. Activities associated with this sampling event are described in this memo.

HYDRAULIC MONITORING

Prior to sampling, a complete round of water level measurements and well soundings were taken. Table 1 presents the water level information in addition to comparing the sounded depths to the installed depths.

GROUNDWATER MONITORING

A total of seven monitoring wells were visited during this sampling round. All seven wells had sufficient recharge to purge three to five well volumes.

Purging of wells was accomplished by the use of either a battery operated submersible pump or Teflon bailer. Samples were obtained with a dedicated bottom loading Teflon bailer. Table 2 provides the pertinent groundwater data.

WELL INSPECTIONS

Well inspections were performed at each of the monitoring wells. No problems were noted during this round.

FUTURE MONITORING

The next scheduled groundwater sampling round will be performed in March 2011.

(122)

DAILY LOG

9-7-10 calibrate YSI NF04441

	Before	After
pH (4)		
pH (7)		
Cond (1.413)	1.59	
Turb (0)		
Turb (100)		

Calibrate Horiba NF05036
w/Auto cal Solution pH 4.00
Cond 4.49 Turb 0

0755 DJT on-site next BG
Bucci get keys Mostly sunny
70-85 very windy
0825 start w/L Round
0920 Complete w/L Round
Dry out MW-3
Purge & Sample BW-2, GW8B
Trip Blank = TB-5513-090710
BW1, BW4, BW3, Sample MW3
Purge & Sample GW9B
Clean up
1515 Off-site

HYDRAULIC MONITORING

DATE CREW

WELL #	TIME	W/L	SOUNDED DEPTH
MW 3	0848	12.62	15.25
BW 1	0826	~~18.44~~ 15.44	25.93
BW 2	0921	14.13	24.76
BW 3	0836	13.96	23.48
BW 4	0833	13.36	21.49
GW 8B	0822	11.07	29.53
GW 9B	0909	14.51	32.03
MW 1	0830	11.86	23.44
MW 2	0918	17.59	24.73
BW 5	0844	10.44	26.00
BW 6	0912	17.16	26.23

INST. CONTROL #

NF04308

Dave J Tyson

MW-3

DATE 9-7-10 CREW DJT
PROJECT 5513
CONDITION Good
DEPTH 2" 0-15.25
INITIAL W/L 12.62
VOL CALC. 15.25-12.62 = 2.63 x .16 = 0.4
METHOD Dedicated Teflon Bailer

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
0852	0.4	5.48	0.513	16.71	535
0856	0.8	6.05	0.487	14.68	800
0858	1.2	6.20	0.477	14.11	OR
0900	1.6	6.21	0.473	13.52	OR

INITIAL W/Φ Cloudy Dark Brown

FINAL W/Φ Same

FINAL W/L 14.51

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD dedicated Teflon Bailer

VOL/ANALYSIS See pg 28©

SAMPLE TIME: 1350
SAMPLE ID: WG-5513-090710-007

W/Φ Cloudy Brown

PH	COND	TEMP	TURB
6.99	0.488	17.45	736

COFC# 24518

INST CONTROL #S
W/L METER-NF04308
Horiba NF05036

OR over range

Dave J Tyson

BW-1

DATE 9-7-10 CREW DJT
PROJECT# 5513
CONDITION Good
DEPTH 4"0 - 20.9 3" 20.9 - 35.9
INITIAL W/L 18.44
VOL CALC. 20.9 - 18.44 = 2.46 x .65 = 1.6 + 5.6
METHOD Monsoon Pump 7.2

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1140	7.2	6.88	1.42	16.10	118
1144	14.4	6.80	1.44	14.72	51.8
1148	21.6	6.59	1.46	12.67	26.3

INITIAL W/Q Cloudy Dark gray
FINAL W/L Clear, Colorless
FINAL W/Q 20.11

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD Dedicated Teflon Bailer
VOL/ANALYSIS See Pg 28 (C)

SAMPLE TIME 1155
SAMPLE ID: WG-5513-090710-004

W/Q Cloudy Light Brown

PH	COND	TEMP	TURB
6.82	1.47	14.05	1.79

COC# 24518

INST. CONTROL #'S
W/L METER. NF04308
Horiba NF05036

35.9 - 20.9 = 15 x .37 = 5.6

Dave J Tyson

BW-2

DATE 9-7-10 CREW DJT
PROJECT# 5513
CONDITION Good
DEPTH 4"0 - 21.1 3" 21.1 - 37.1
INITIAL W/L 14.13
VOL CALC. 21.1 - 14.13 = 6.97 x .65 = 4.5 + 5.9 = 10.4
METHOD Monsoon Pump

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
0934	10.4	6.23	2.24	13.71	19.9
0939	20 8	6.20	2 33	12.52	0.0
0944	31.2	6.21	2.34	11.72	0.0

INITIAL W/P Cloudy Dark Brown

FINAL W/P Clear, Light Green Tint

FINAL W/L 14.50

DUP

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD Dedicated Teflon Bailer

VOL/ANALYSIS Pg 28 (C) x 2

SAMPLE TIME: 1000
SAMPLE ID: WG-5513-090710-001
Blind Dup WG-5513-090710-002 (1200)

W/P Cloudy green/Brown

PH	COND	TEMP	TURB
6.29	2.34	13.52	152

COFC# 24518

INST. CONTROL #S
W/L METER NF04308
Horiba NF0-5036

37.1 - 21.1 = 16 x .37 = 5.9

Dave J Tyran

BW-3

DATE: 9-7-10 CREW DJT
PROJECT # 5513
CONDITION Good
DEPTH 4" 0-9.7 3" 9.7-23.45
INITIAL W/L 13.96
VOL CALC 23.45 - 13.96 = 9.49 x 6 .37 = 3.5
METHOD Monsoon Pump

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1307	3.5	7.11	1.49	14.02	0.0
1309	7.0	6.77	1.53	12.56	0.0
1310	10.5	6.64	1.55	11.74	0.0

INITIAL W/Q Clear, Colorless
FINAL W/Q Same
FINAL W/L 13.83

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD Dedicated Teflon Bailer

VOL/ANALYSIS See pg 28 (C)

SAMPLE TIME: 1330
SAMPLE ID: WG-5513-090710-006

W/Q Clear, colorless

PH	COND	TEMP	TURB
6.61	1.53	14.47	0.0

COC# 24518

INST. CONTROL #S
W/L Meter NF04308
Horiba NF05036

Dave J Tyler

BW-4

DATE 9.7.10 CREW DJT
PROJECT# 5513
CONDITION Good
DEPTH 4" 0 - 13.9 3" 13.9 - 27.5
INITIAL W/L 13.36
VOL CALC 13.9 - 13.36 = 0.54 x .65 = .4 x 5
METHOD Monsoon Pump 5.4

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1222	5.4	6.75	1.66	14.63	>77.7
1225	10.8	6.39	1.68	12.84	5.2
1228	16.2	6.39	1.64	12.30	0.6

INITIAL W/Q cloudy Dark gray

~~INITIAL~~ (C) FINAL W/Q

FINAL W/L 14.66

SAMPLE RECORD

DATE 9.7.10
CREW DJT
METHOD Dedicated Teflon Bailer

VOL/ANALYSIS See pg 28 (C)

SAMPLE TIME: 1240
SAMPLE ID: WG-5513-090710-005

W/Q Cloudy Light Brown

PH	COND.	TEMP	TURB
6.32	1.61	13.60	64.9

COC# 24518

INST CONTROL #S
W/L METER: NF04308
Horiba NF05036

27.5 - 13.9 = 13.6 x .37 = 5

Dave Tyler

GW-8B

DATE 9-7-10 CREW DJT
PROJECT# 5513
CONDITION Good
DEPTH 3" Ø - 29.5
INITIAL W/L 11.07
VOL CALC 29.5 - 11.07 = 18.43 x .37 = 6.8
METHOD Monsoon Pump

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1041	6.8	7.02	1.61	14.25	140
1045	13.6	6.64	1.61	12.85	342
1050	20.4	6.51	1.63	12.48	266

INITIAL W/Q Clear, colorless

FINAL W/Q Cloudy Dark gray

FINAL W/L 28.60

MS/MSD

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD Dedicated Teflon Bailer

VOL/ANALYSIS See pg 28 (C) x 3

SAMPLE TIME GW-5513-090710-003
SAMPLE ID: 1100

W/Q Clear, colorless

PH	COND	TEMP	TURB
6.45	1.62	18.30	10.4

COC# 24518

INST. CONTROL #3
W/L METER

Dave J Tyler

GW-9B

DATE 9-7-10 CREW DJT
PROJECT# 5513
CONDITION Good
DEPTH 3" 0-31.7
INITIAL W/L 14.51
VOL CALC. 31.7 - 14.51 = 17.19 x .37 = 6.4
METHOD Monsoon Pump

PURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1414	6.4	6.80	2.18	14.18	17.8
1417	12.8	6.42	2.27	12.78	0.0
1421	19.2	6.31	2.32	12.06	0.0

INITIAL W/P Clear, Colorless

FINAL W/P Same

FINAL W/L 23.78

SAMPLE RECORD

DATE 9-7-10
CREW DJT
METHOD Dedicated Teflon Bailer

VOL/ANALYSIS See Pg 28©

SAMPLE TIME 1430
SAMPLE ID: WG-5513-090710-008

W/P Clear, Colorless

PH	COND	TEMP	TURB
6.42	2.31	13 95	9 2

COFC# 24518

INST. CONTROL #3
W/L METER. NF04308
Horiba NF05036

Dave J Tyson

TABLE 1

HYDRAULIC MONITORING
POST-CLOSURE MONITORING PROGRAM
UCAR REPUBLIC SWMU #32NO3
NIAGARA FALLS, NEW YORK
SEPTEMBER 2010

Well I.D.	*TOC Elevation (Ft. AMSL)*	*Depth to Water (Ft. BTOC)*	*Water Level Elevation (Ft. AMSL)*	*Sounded Depth (Ft. BTOC)*	*Installed Depth (Ft. BTOC)*
MW-3	601.89	12.62	589.27	15.25	14.4
BW-1	610.72	15.44	595.28	25.93	35.9
BW-2	608.43	14.13	594.30	24.76	37.1
BW-3	604.72	13.96	590.76	23.48	22.7
BW-4	607.08	13.36	593.72	21.49	27.5
GW-8B	603.90	11.07	592.83	29.53	29.5
GW-9B	603.40	14.51	588.89	32.03	31.7

Notes:

AMSL	Above Mean Sea Level.
BTOC	Below Top of Casing.
Ft.	Feet.
NM	Not Measured.

TABLE 2

SAMPLE COLLECTION AND ANALYSIS SUMMARY
POST-CLOSURE MONITORING PROGRAM
UCAR REPUBLIC SWMU #32NO3
NIAGARA FALLS, NEW YORK
SEPTEMBER 2010

Well I.D.	Purge Date	Sample Date	One Well Volume (Gallons)	Total Volume Purged (Gallons)	Turbidity (NTU)	Analytical Parameters			Misc. [1] Parameters	Comments
						VOCs	Total Metals	Dissolved Metals		
MW-3	09/07/10	09/07/10	0.4	1.6	736	x	x	x	x	
BW-1	09/07/10	09/07/10	7.2	21.6	179	x	x	x	x	
BW-2	09/07/10	09/07/10	10.4	31.2	152	x	x	x	x	
BW-3	09/07/10	09/07/10	3.5	10.5	0.0	x	x	x	x	
BW-4	09/07/10	09/07/10	5.4	16.2	64.9	x	x	x	x	
GW-8B	09/07/10	09/07/10	6.8	20.4	10.4	x	x	x	x	MS/MSD
GW-9B	09/07/10	09/07/10	6.4	19.2	9.2	x	x	x	x	

Notes:

[1] Nitrite, nitrogen, NO_2, ammonia, total kjeldahl nitrogen.

MS Matrix Spike.

MSD Matrix Spike Duplicate.

NM Not measured, insufficient volume for final reading.

NTU Nephelometric Turbidity Unit.

VOCs Volatile Organic Compounds.

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2010

	Location ID:	*BW-2*	*BW-2*	*GW-8B*	*BW-1*	*BW-4*	*BW-3*	*MW-3*	*GW-9B*
	Sample Date:	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*
Parameters	*Units*								
Volatile Organic Compounds									
1,1,1-TRICHLOROETHANE (TCA)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-TETRACHLOROETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U	5.0 U
1,1,2-TRICHLOROETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-DICHLOROETHANE (1,1-DCA)	µg/L	5.0 U	5.0 U	5.0 U	0.20 J	5.0 U	5.0 U	5.0 U	5.0 U
1,1-DICHLOROETHENE (1,1-DCE)	µg/L	5.0 U	5.0 U	0.41 J	5.0 U	4.1 J	5.0 U	5.0 U	5.0 U
1,2-DICHLOROETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DICHLOROETHENE, TOTAL	µg/L	10 U	10 U	20	0.94 J	740	2.2 J	10 U	10 U
1,2-DICHLOROPROPANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-BUTANONE (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-HEXANONE	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ACETONE	µg/L	20 U	20 U	20 U	2.9 J	3.2 J	20 U	20 U	20 U
BENZENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	0.48 J	5.0 U	5.0 U	5.0 U
BROMODICHLOROMETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
BROMOFORM	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
BROMOMETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CARBON DISULFIDE	µg/L	0.60 J	0.74 J	10 U	10 U	0.66 J	10 U	10 U	10 U
CARBON TETRACHLORIDE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROETHANE	µg/L	5.0 U	5.0 U	5.0 U	6.8	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	9.6	5.0 U	5.0 U	5.0 U
CHLOROMETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CIS-1,3-DICHLOROPROPENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
DIBROMOCHLOROMETHANE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
ETHYLBENZENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYLENE CHLORIDE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
STYRENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
TETRACHLOROETHENE (PCE)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	97	5.0 U	5.0 U	5.0 U

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2010

	Location ID:	*BW-2*	*BW-2*	*GW-8B*	*BW-1*	*BW-4*	*BW-3*	*MW-3*	*GW-9B*
	Sample Date:	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*	*09/07/10*
Parameters	*Units*								
Volatile Organic Compounds (Cont'd.)									
TOLUENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	0.51 J	5.0 U	5.0 U	5.0 U
TRANS-1,3-DICHLOROPROPENE	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
TRICHLOROETHENE (TCE)	µg/L	5.0 U	5.0 U	8.8	5.0 U	300	5.0 U	5.0 U	5.0 U
VINYL CHLORIDE	µg/L	5.0 U	5.0 U	3.5 J	1.6 J	170	6.4	5.0 U	5.0 U
XYLENES, TOTAL	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Metals									
IRON	µg/L	6240	8930	272	10000	8480	982	35800	199
POTASSIUM	µg/L	5720	5640	5400	5650	18200	3360	7710	3580
ZINC	µg/L	2900	3850	1350	30600	3340	66.8	221	9.7 J
Metals (Dissolved)									
IRON (Diss.)	µg/L	1140 J	1410 J	265 J	1700 J	4350 J	806 J	6350 J	133 J
POTASSIUM (Diss.)	µg/L	5560	5590	5680	5780	19300	3420	2930	3680
ZINC (Diss.)	µg/L	135	163	303	1400	143	8.1 J	33.4	5.0 J
Wet Chemistry									
AMMONIA AS NITROGEN	mg/L	0.522	0.529	0.050 U	0.927	3.32	0.482	0.099	0.461
NITRITE AS NITROGEN	mg/L	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.010 UJ	0.015 J	0.010 UJ
NITROGEN, TOTAL KJELDAHL (TKN)	mg/L	1.26	1.20	0.41	1.76	4.24	0.80	1.46	0.89

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

September 30, 2010 Service Request No: R1004897

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

Laboratory Results for: UCAR Annual GE/5513-20

Dear Ms. Scrocchi:

Enclosed are the results of the sample(s) submitted to our laboratory on September 9, 2010. For your reference, these analyses have been assigned our service request number **R1004897**.

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.

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.:**	R1004897
Project:	UCAR	**Date Received:**	9/7/10
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 9/9/10. The samples were received in good condition consistent with the accompanying chain of custody form enclosed. The samples were received at 2.1°C within the 0-6°C temperature guidelines.

Wet Chemistry & Metals

Dissolved metals were field filtered.

The Nitrite analysis for all samples was received outside of the 48hour holding time. These were analyzed as soon as possible upon receipt into the laboratory.

Site QC was requested on sample WG-5513-090710-003 R1004897-005 and -006). The RPD for the sample Duplicate was outside of the control limits for Dissolved Iron. Iron has been flagged with a "*" on all samples. All other QC was within limits for the day.

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

Volatile Organics

The Initial Calibration exceeded 15%RSD for Bromomethane and this compound has been placed on a linear regression. The response factor for Acetone was outside of the control limits low for the Initial Calibration but appropriate sensitivity has still been achieved.

Several samples exceeded the calibration range of the instrument and have been flagged with an "E". The samples were repeated at a dilution and flagged with a "D". Both sets of data have been reported.

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

Approved by _____ Date 10/1/10

CAS ASP/CLP Batch...g Form/Login Sheet

Client Proj #:	5513-20	Batch Complete:	Yes	Date Revised:	
Submission:	R1004897	Diskette Requested:	No	Date Due:	9/30/10
Client:	Conestoga-Rovers & Associates, I	Date:	9/30/10	Protocol:	SW846
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	UCAR Annual GE	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1004897-001	WG-5513-090710-001	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-002	WG-5513-090710-001 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-003	WG-5513-090710-002	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-004	WG-5513-090710-002 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-005QC	WG-5513-090710-003	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-006QC	WG-5513-090710-003 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-007	WG-5513-090710-004	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-008	WG-5513-090710-004 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-009	WG-5513-090710-005	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-009.R01	WG-5513-090710-005	Water	8260B	9/7/10	9/9/10			
R1004897-010	WG-5513-090710-005 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-011	WG-5513-090710-006	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-012	WG-5513-090710-006 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-013	WG-5513-090710-007	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-014	WG-5513-090710-007 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-015	WG-5513-090710-008	Water	8260B, 351.2, 353.2, 350.1, 6010B	9/7/10	9/9/10			
R1004897-016	WG-5513-090710-008 DISSOLVED	Water	6010B	9/7/10	9/9/10			
R1004897-017	TRIP BLANK	Water	8260B	9/7/10	9/9/10			

Folder Comments: September; metals field filtered; EDD on web site

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.
#	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
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Navy Facilities Engineering Service Center Approved
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
West Virginia ID # 292

[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
UCAR
Annual GW Sampling

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

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	PARAMETERS: VOCs	Total Metals	Diss. Metals	NO3	Mets TKN	REMARKS
	9-7-10	1000	WG-5513-090710-001	Water	7	3	1	1	1	1	
		1200	WG-5513-090710-002		7	3	1	1	1	1	
		1100	WG-5513-090710-003		17	9	2	2	2	2	
		1155	WG-5513-090710-004		7	3	1	1	1	1	
		1240	WG-5513-090710-005		7	3	1	1	1	1	
		1330	WG-5513-090710-006		7	3	1	1	1	1	
		1350	WG-5513-090710-007		7	3	1	1	1	1	
		1430	WG-5513-090710-008		7	3	1	1	1	1	
			TB-5513-090710	Lab Water	3	3					

R1004897
Conestoga-Rovers & Associates, Inc.
UCAR Annual GE

TOTAL NUMBER OF CONTAINERS: 69

HEALTH/CHEMICAL HAZARDS

RELINQUISHED BY ①: David Tyran	DATE: 9-7-10 TIME: 1630	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: Dawn Irwin
DATE: 9/9/10 TIME: 1615

Nº CRA 24518

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

R1004897
Conestoga-Rovers & Associates, Inc.
UCAR Annual GE

Cooler Receipt And Preservation Check Form

Project/Client CRA Submission Number R10-4897

Cooler received on 9/9/10 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 any VOA vials have significant* air bubbles?			* (YES)	(NO) DPW 9/9/10	N/A
5.	Were ~~Ice or~~ Ice packs present?			(YES)	NO	
6.	Where did the bottles originate?			(CAS/RO)C,	(CLIENT)	
7.	Temperature of cooler(s) upon receipt:	2.1°				
	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: 9/9/10 / 1625

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: _____

Cooler Breakdown: Date: 9/10/10 Time: 0840 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	✓		BDB26183A	6/11				
≤2	H_2SO_4	✓		INC922280	8/11				
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	41100210	8/11				

*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: Client, 070510-2AA, 111609-2TT, 0-132-002

Other Comments: * Two of the vials for the trip blank had significant air bubbles.

PC Secondary Review: _____ *significant air bubbles are greater than 5-6 mm

H:\SMODOCS\Cooler Receipt 2.doc

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1000
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-001	**Units:**	µg/L
Lab Code:	R1004897-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 01:32		216527
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 01:32		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 01:32		216527
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 01:32		216527
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 01:32		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 01:32		216527
1,2-Dichloroethene, Total	10	U	10	0.38	1	NA	9/15/10 01:32		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 01:32		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 01:32		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 01:32		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 01:32		216527
Acetone	20	U	20	1.6	1	NA	9/15/10 01:32		216527
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 01:32		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 01:32		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 01:32		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 01:32		216527
Carbon Disulfide	0.60	J	10	0.35	1	NA	9/15/10 01:32		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 01:32		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 01:32		216527
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 01:32		216527
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 01:32		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 01:32		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 01:32		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 01:32		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 01:32		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 01:32		216527
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 01:32		216527
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 01:32		216527
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 01:32		216527
Vinyl Chloride	5.0	U	5.0	0.28	1	NA	9/15/10 01:32		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 01:32		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 01:32		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 01:32		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1000
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-001	**Units:**	Percent
Lab Code:	R1004897-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85-122	9/15/10 01:32	
Dibromofluoromethane	102	89-119	9/15/10 01:32	
Toluene-d8	102	87-121	9/15/10 01:32	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1200
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-002	**Units:**	µg/L
Lab Code:	R1004897-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 01:59		216527
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 01:59		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 01:59		216527
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 01:59		216527
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 01:59		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 01:59		216527
1,2-Dichloroethene, Total	10	U	10	0.38	1	NA	9/15/10 01:59		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 01:59		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 01:59		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 01:59		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 01:59		216527
Acetone	20	U	20	1.6	1	NA	9/15/10 01:59		216527
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 01:59		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 01:59		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 01:59		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 01:59		216527
Carbon Disulfide	0.74	J	10	0.35	1	NA	9/15/10 01:59		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 01:59		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 01:59		216527
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 01:59		216527
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 01:59		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 01:59		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 01:59		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 01:59		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 01:59		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 01:59		216527
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 01:59		216527
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 01:59		216527
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 01:59		216527
Vinyl Chloride	5.0	U	5.0	0.28	1	NA	9/15/10 01:59		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 01:59		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 01:59		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 01:59		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1200
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-002	**Units:**	Percent
Lab Code:	R1004897-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/15/10 01:59	
Dibromofluoromethane	106	89-119	9/15/10 01:59	
Toluene-d8	102	87-121	9/15/10 01:59	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1100
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-003	**Units:**	µg/L
Lab Code:	R1004897-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 02:26		216527
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 02:26		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 02:26		216527
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 02:26		216527
1,1-Dichloroethene (1,1-DCE)	0.41	J	5.0	0.37	1	NA	9/15/10 02:26		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 02:26		216527
1,2-Dichloroethene, Total	20		10	0.38	1	NA	9/15/10 02:26		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 02:26		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 02:26		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 02:26		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 02:26		216527
Acetone	20	U	20	1.6	1	NA	9/15/10 02:26		216527
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 02:26		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 02:26		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 02:26		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 02:26		216527
Carbon Disulfide	10	U	10	0.35	1	NA	9/15/10 02:26		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 02:26		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 02:26		216527
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 02:26		216527
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 02:26		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 02:26		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 02:26		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 02:26		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 02:26		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 02:26		216527
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 02:26		216527
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 02:26		216527
Trichloroethene (TCE)	8.8		5.0	0.19	1	NA	9/15/10 02:26		216527
Vinyl Chloride	3.5	J	5.0	0.28	1	NA	9/15/10 02:26		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 02:26		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 02:26		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 02:26		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1100
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-003	**Units:**	Percent
Lab Code:	R1004897-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	9/15/10 02:26	
Dibromofluoromethane	106	89-119	9/15/10 02:26	
Toluene-d8	103	87-121	9/15/10 02:26	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1155
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-004	**Units:**	µg/L
Lab Code:	R1004897-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 02:53		216527
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 02:53		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 02:53		216527
1,1-Dichloroethane (1,1-DCA)	**0.20**	J	5.0	0.13	1	NA	9/15/10 02:53		216527
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 02:53		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 02:53		216527
1,2-Dichloroethene, Total	**0.94**	J	10	0.38	1	NA	9/15/10 02:53		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 02:53		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 02:53		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 02:53		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 02:53		216527
Acetone	**2.9**	J	20	1.6	1	NA	9/15/10 02:53		216527
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 02:53		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 02:53		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 02:53		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 02:53		216527
Carbon Disulfide	10	U	10	0.35	1	NA	9/15/10 02:53		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 02:53		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 02:53		216527
Chloroethane	**6.8**		5.0	0.25	1	NA	9/15/10 02:53		216527
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 02:53		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 02:53		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 02:53		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 02:53		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 02:53		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 02:53		216527
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 02:53		216527
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 02:53		216527
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 02:53		216527
Vinyl Chloride	**1.6**	J	5.0	0.28	1	NA	9/15/10 02:53		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 02:53		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 02:53		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 02:53		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1155
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-004	**Units:**	Percent
Lab Code:	R1004897-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	9/15/10 02:53	
Dibromofluoromethane	108	89-119	9/15/10 02:53	
Toluene-d8	104	87-121	9/15/10 02:53	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1240
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-005	**Units:**	µg/L
Lab Code:	R1004897-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 03:21		216527
1,1,2,2-Tetrachloroethane	2.9	J	5.0	0.20	1	NA	9/15/10 03:21		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 03:21		216527
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 03:21		216527
1,1-Dichloroethene (1,1-DCE)	4.1	J	5.0	0.37	1	NA	9/15/10 03:21		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 03:21		216527
1,2-Dichloroethene, Total	830	E	10	0.38	1	NA	9/15/10 03:21		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 03:21		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 03:21		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 03:21		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 03:21		216527
Acetone	3.2	J	20	1.6	1	NA	9/15/10 03:21		216527
Benzene	0.48	J	5.0	0.31	1	NA	9/15/10 03:21		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 03:21		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 03:21		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 03:21		216527
Carbon Disulfide	0.66	J	10	0.35	1	NA	9/15/10 03:21		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 03:21		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 03:21		216527
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 03:21		216527
Chloroform	9.6		5.0	0.20	1	NA	9/15/10 03:21		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 03:21		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 03:21		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 03:21		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 03:21		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 03:21		216527
Tetrachloroethene (PCE)	97		5.0	0.42	1	NA	9/15/10 03:21		216527
Toluene	0.51	J	5.0	0.21	1	NA	9/15/10 03:21		216527
Trichloroethene (TCE)	340	E	5.0	0.19	1	NA	9/15/10 03:21		216527
Vinyl Chloride	170		5.0	0.28	1	NA	9/15/10 03:21		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 03:21		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 03:21		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 03:21		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1240
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-005	**Units:**	Percent
Lab Code:	R1004897-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85-122	9/15/10 03:21	
Dibromofluoromethane	106	89-119	9/15/10 03:21	
Toluene-d8	103	87-121	9/15/10 03:21	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1240
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-005	**Units:**	µg/L
Lab Code:	R1004897-009	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	50	U	50	1.6	10	NA	9/15/10 14:08		216695
1,1,2,2-Tetrachloroethane	**3.2**	DJ	50	2.0	10	NA	9/15/10 14:08		216695
1,1,2-Trichloroethane	50	U	50	2.9	10	NA	9/15/10 14:08		216695
1,1-Dichloroethane (1,1-DCA)	50	U	50	1.3	10	NA	9/15/10 14:08		216695
1,1-Dichloroethene (1,1-DCE)	50	U	50	3.7	10	NA	9/15/10 14:08		216695
1,2-Dichloroethane	50	U	50	1.5	10	NA	9/15/10 14:08		216695
1,2-Dichloroethene, Total	**740**	D	100	3.8	10	NA	9/15/10 14:08		216695
1,2-Dichloropropane	50	U	50	6.7	10	NA	9/15/10 14:08		216695
2-Butanone (MEK)	100	U	100	10	10	NA	9/15/10 14:08		216695
2-Hexanone	100	U	100	4.0	10	NA	9/15/10 14:08		216695
4-Methyl-2-pentanone	100	U	100	3.5	10	NA	9/15/10 14:08		216695
Acetone	200	U	200	16	10	NA	9/15/10 14:08		216695
Benzene	50	U	50	3.1	10	NA	9/15/10 14:08		216695
Bromodichloromethane	50	U	50	4.1	10	NA	9/15/10 14:08		216695
Bromoform	50	U	50	3.0	10	NA	9/15/10 14:08		216695
Bromomethane	50	U	50	4.0	10	NA	9/15/10 14:08		216695
Carbon Disulfide	100	U	100	3.5	10	NA	9/15/10 14:08		216695
Carbon Tetrachloride	50	U	50	3.6	10	NA	9/15/10 14:08		216695
Chlorobenzene	50	U	50	2.6	10	NA	9/15/10 14:08		216695
Chloroethane	50	U	50	2.5	10	NA	9/15/10 14:08		216695
Chloroform	**7.8**	DJ	50	2.0	10	NA	9/15/10 14:08		216695
Chloromethane	50	U	50	4.7	10	NA	9/15/10 14:08		216695
Dibromochloromethane	50	U	50	2.0	10	NA	9/15/10 14:08		216695
Methylene Chloride	50	U	50	2.7	10	NA	9/15/10 14:08		216695
Ethylbenzene	50	U	50	4.2	10	NA	9/15/10 14:08		216695
Styrene	50	U	50	3.5	10	NA	9/15/10 14:08		216695
Tetrachloroethene (PCE)	**79**	D	50	4.2	10	NA	9/15/10 14:08		216695
Toluene	50	U	50	2.1	10	NA	9/15/10 14:08		216695
Trichloroethene (TCE)	**300**	D	50	1.9	10	NA	9/15/10 14:08		216695
Vinyl Chloride	**140**	D	50	2.9	10	NA	9/15/10 14:08		216695
Xylenes, Total	50	U	50	12	10	NA	9/15/10 14:08		216695
cis-1,3-Dichloropropene	50	U	50	1.8	10	NA	9/15/10 14:08		216695
trans-1,3-Dichloropropene	50	U	50	1.8	10	NA	9/15/10 14:08		216695

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1240
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-005	**Units:**	Percent
Lab Code:	R1004897-009	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	9/15/10 14:08	
Dibromofluoromethane	107	89-119	9/15/10 14:08	
Toluene-d8	105	87-121	9/15/10 14:08	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1330
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-006	**Units:**	µg/L
Lab Code:	R1004897-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 13:14		216695
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 13:14		216695
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 13:14		216695
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 13:14		216695
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 13:14		216695
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 13:14		216695
1,2-Dichloroethene, Total	**2.2**	J	10	0.38	1	NA	9/15/10 13:14		216695
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 13:14		216695
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 13:14		216695
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 13:14		216695
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 13:14		216695
Acetone	20	U	20	1.6	1	NA	9/15/10 13:14		216695
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 13:14		216695
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 13:14		216695
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 13:14		216695
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 13:14		216695
Carbon Disulfide	10	U	10	0.35	1	NA	9/15/10 13:14		216695
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 13:14		216695
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 13:14		216695
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 13:14		216695
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 13:14		216695
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 13:14		216695
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 13:14		216695
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 13:14		216695
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 13:14		216695
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 13:14		216695
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 13:14		216695
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 13:14		216695
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 13:14		216695
Vinyl Chloride	**6.4**		5.0	0.28	1	NA	9/15/10 13:14		216695
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 13:14		216695
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 13:14		216695
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 13:14		216695

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1330
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-006	**Units:**	Percent
Lab Code:	R1004897-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/15/10 13:14	
Dibromofluoromethane	104	89-119	9/15/10 13:14	
Toluene-d8	102	87-121	9/15/10 13:14	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1350
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-007	**Units:**	µg/L
Lab Code:	R1004897-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 13:41		216695
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 13:41		216695
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 13:41		216695
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 13:41		216695
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 13:41		216695
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 13:41		216695
1,2-Dichloroethene, Total	10	U	10	0.38	1	NA	9/15/10 13:41		216695
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 13:41		216695
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 13:41		216695
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 13:41		216695
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 13:41		216695
Acetone	20	U	20	1.6	1	NA	9/15/10 13:41		216695
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 13:41		216695
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 13:41		216695
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 13:41		216695
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 13:41		216695
Carbon Disulfide	10	U	10	0.35	1	NA	9/15/10 13:41		216695
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 13:41		216695
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 13:41		216695
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 13:41		216695
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 13:41		216695
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 13:41		216695
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 13:41		216695
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 13:41		216695
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 13:41		216695
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 13:41		216695
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 13:41		216695
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 13:41		216695
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 13:41		216695
Vinyl Chloride	5.0	U	5.0	0.28	1	NA	9/15/10 13:41		216695
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 13:41		216695
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 13:41		216695
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 13:41		216695

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1350
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-007	**Units:**	Percent
Lab Code:	R1004897-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	85-122	9/15/10 13:41	
Dibromofluoromethane	107	89-119	9/15/10 13:41	
Toluene-d8	107	87-121	9/15/10 13:41	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1430
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-008	**Units:**	µg/L
Lab Code:	R1004897-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.16	1	NA	9/15/10 04:42		216527
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.20	1	NA	9/15/10 04:42		216527
1,1,2-Trichloroethane	5.0	U	5.0	0.28	1	NA	9/15/10 04:42		216527
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.13	1	NA	9/15/10 04:42		216527
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.37	1	NA	9/15/10 04:42		216527
1,2-Dichloroethane	5.0	U	5.0	0.15	1	NA	9/15/10 04:42		216527
1,2-Dichloroethene, Total	10	U	10	0.38	1	NA	9/15/10 04:42		216527
1,2-Dichloropropane	5.0	U	5.0	0.66	1	NA	9/15/10 04:42		216527
2-Butanone (MEK)	10	U	10	1.0	1	NA	9/15/10 04:42		216527
2-Hexanone	10	U	10	0.40	1	NA	9/15/10 04:42		216527
4-Methyl-2-pentanone	10	U	10	0.34	1	NA	9/15/10 04:42		216527
Acetone	20	U	20	1.6	1	NA	9/15/10 04:42		216527
Benzene	5.0	U	5.0	0.31	1	NA	9/15/10 04:42		216527
Bromodichloromethane	5.0	U	5.0	0.41	1	NA	9/15/10 04:42		216527
Bromoform	5.0	U	5.0	0.30	1	NA	9/15/10 04:42		216527
Bromomethane	5.0	U	5.0	0.40	1	NA	9/15/10 04:42		216527
Carbon Disulfide	10	U	10	0.35	1	NA	9/15/10 04:42		216527
Carbon Tetrachloride	5.0	U	5.0	0.36	1	NA	9/15/10 04:42		216527
Chlorobenzene	5.0	U	5.0	0.26	1	NA	9/15/10 04:42		216527
Chloroethane	5.0	U	5.0	0.25	1	NA	9/15/10 04:42		216527
Chloroform	5.0	U	5.0	0.20	1	NA	9/15/10 04:42		216527
Chloromethane	5.0	U	5.0	0.46	1	NA	9/15/10 04:42		216527
Dibromochloromethane	5.0	U	5.0	0.20	1	NA	9/15/10 04:42		216527
Methylene Chloride	5.0	U	5.0	0.27	1	NA	9/15/10 04:42		216527
Ethylbenzene	5.0	U	5.0	0.42	1	NA	9/15/10 04:42		216527
Styrene	5.0	U	5.0	0.35	1	NA	9/15/10 04:42		216527
Tetrachloroethene (PCE)	5.0	U	5.0	0.42	1	NA	9/15/10 04:42		216527
Toluene	5.0	U	5.0	0.21	1	NA	9/15/10 04:42		216527
Trichloroethene (TCE)	5.0	U	5.0	0.19	1	NA	9/15/10 04:42		216527
Vinyl Chloride	5.0	U	5.0	0.28	1	NA	9/15/10 04:42		216527
Xylenes, Total	5.0	U	5.0	1.2	1	NA	9/15/10 04:42		216527
cis-1,3-Dichloropropene	5.0	U	5.0	0.18	1	NA	9/15/10 04:42		216527
trans-1,3-Dichloropropene	5.0	U	5.0	0.17	1	NA	9/15/10 04:42		216527

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1430
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-008	**Units:**	Percent
Lab Code:	R1004897-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85-122	9/15/10 04:42	
Dibromofluoromethane	105	89-119	9/15/10 04:42	
Toluene-d8	103	87-121	9/15/10 04:42	

Columbia Analytical Services

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1004897 SDG No.: WG-5513-090

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

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
WG-5513-090710-001	R1004897-001
WG-5513-090710-001 DISSOLVED	R1004897-002
WG-5513-090710-002	R1004897-003
WG-5513-090710-002 DISSOLVED	R1004897-004
WG-5513-090710-003	R1004897-005
WG-5513-090710-003D	R1004897-005D
WG-5513-090710-003S	R1004897-005S
WG-5513-090710-003 DISSOLVED	R1004897-006
WG-5513-090710-003 DISSOLVEDD	R1004897-006D
WG-5513-090710-003 DISSOLVEDS	R1004897-006S
WG-5513-090710-004	R1004897-007
WG-5513-090710-004 DISSOLVED	R1004897-008
WG-5513-090710-005	R1004897-009
WG-5513-090710-005 DISSOLVED	R1004897-010
WG-5513-090710-006	R1004897-011
WG-5513-090710-006 DISSOLVED	R1004897-012
WG-5513-090710-007	R1004897-013
WG-5513-090710-007 DISSOLVED	R1004897-014
WG-5513-090710-008	R1004897-015
WG-5513-090710-008 DISSOLVED	R1004897-016

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 E. Perry Name: Michael Perry

Date: 10/01/10 Title: Laboratory Director

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-090710-001

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-001

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	6240		*	P
7440-09-7	Potassium	5720			P
7440-66-6	Zinc	2900			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-5513-090710-001 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-002

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1140		*	P
7440-09-7	Potassium	5560			P
7440-66-6	Zinc	135			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-5513-090710-002

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-003

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	8930		*	P
7440-09-7	Potassium	5640			P
7440-66-6	Zinc	3850			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-5513-090710-002 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-004

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1410		*	P
7440-09-7	Potassium	5590			P
7440-66-6	Zinc	163			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-5513-090710-003

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-005

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	272		*	P
7440-09-7	Potassium	5400			P
7440-66-6	Zinc	1350			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-5513-090710-003 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-006

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	265		*	P
7440-09-7	Potassium	5680			P
7440-66-6	Zinc	303			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-5513-090710-004

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-007

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	10000		*	P
7440-09-7	Potassium	5650			P
7440-66-6	Zinc	30600			P

Color Before: YELLOW Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-090710-004 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-008

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	1700		*	P
7440-09-7	Potassium	5780			P
7440-66-6	Zinc	1400			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-5513-090710-005

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-009

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	8480		*	P
7440-09-7	Potassium	18200			P
7440-66-6	Zinc	3340			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-5513-090710-005 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-010

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	4350		*	P
7440-09-7	Potassium	19300			P
7440-66-6	Zinc	143			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-5513-090710-006

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-011

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	982		*	P
7440-09-7	Potassium	3360			P
7440-66-6	Zinc	66.8			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-5513-090710-006 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-012

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	806		*	P
7440-09-7	Potassium	3420			P
7440-66-6	Zinc	8.1	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-5513-090710-007

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-013

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	35800		*	P
7440-09-7	Potassium	7710			P
7440-66-6	Zinc	221			P

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-090710-007 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-014

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	6350		*	P
7440-09-7	Potassium	2930			P
7440-66-6	Zinc	33.4			P

Color Before: YELLOW Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Columbia Analytical Services

METALS

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-090710-008

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-015

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	199		*	P
7440-09-7	Potassium	3580			P
7440-66-6	Zinc	9.7	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-5513-090710-008 DISS

Contract: R1004897

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: WG-5513-0907

Matrix (soil/water): WATER Lab Sample ID: R1004897-016

Level (low/med): LOW Date Received: 9/9/2010

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

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	133		*	P
7440-09-7	Potassium	3680			P
7440-66-6	Zinc	5.0	J		P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1000
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-001		
Lab Code:	R1004897-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.522**		mg/L	0.050	1	NA	9/22/10 11:47
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.26**		mg/L	0.20	1	9/13/10	9/14/10 11:40

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1200
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-002		
Lab Code:	R1004897-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.529**		mg/L	0.050	1	NA	9/22/10 11:48
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.20**		mg/L	0.20	1	9/13/10	9/14/10 11:42

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1100
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-003		
Lab Code:	R1004897-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	9/22/10 11:49
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.41**		mg/L	0.20	1	9/13/10	9/14/10 11:43

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1155
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-004		
Lab Code:	R1004897-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.927**		mg/L	0.050	1	NA	9/22/10 11:52
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.76**		mg/L	0.20	1	9/13/10	9/14/10 11:45

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1240
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-005		
Lab Code:	R1004897-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**3.32**		mg/L	0.10	2	NA	9/22/10 12:38
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**4.24**		mg/L	0.20	1	9/13/10	9/14/10 11:46

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1330
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-006		
Lab Code:	R1004897-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.482**		mg/L	0.050	1	NA	9/22/10 11:54
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.80**		mg/L	0.20	1	9/13/10	9/14/10 11:47

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1350
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-007		
Lab Code:	R1004897-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.099**		mg/L	0.050	1	NA	9/22/10 11:55
Nitrite as Nitrogen	353.2	**0.015**		mg/L	0.010	1	NA	9/9/10 18:27
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.46**		mg/L	0.20	1	9/13/10	9/14/10 11:51

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Conestoga-Rovers & Associates, Incorporated	**Service Request:**	R1004897
Project:	UCAR Annual GE/5513-20	**Date Collected:**	9/ 7/10 1430
Sample Matrix:	Water	**Date Received:**	9/ 9/10
Sample Name:	WG-5513-090710-008		
Lab Code:	R1004897-015	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	**0.461**		mg/L	0.050	1	NA	9/22/10 11:58
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	9/9/10 18:30
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.89**		mg/L	0.20	1	9/13/10	9/14/10 11:53