32N03. GW72

MJH

MM [illegible]

Robert Bucci, Consultant
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Niagara Falls, New York 14304
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November 16 , 2012

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:

32N03

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

The annual monitoring event for the above-referenced Site was conducted on September 27, 2012. 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 to Joseph Coyne of CRA from NYENUDAEA@dec.state.ny.us that on November 8, 2012 that the electronic results of our sampling were transmitted. I have enclosed a hard copy of our results.

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 Spring of 2013. 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

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Niagara Falls, New York 14304
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www.CRAworld.com

MEMORANDUM

TO: Jim Kay

REF. NO.: 005513

FROM: Susan Scrocchi/eew-7 SCS

DATE: November 12, 2012

E-Mail and Hard Copy if Requested

RE: **Analytical Data Assessment and Validation**
Annual Groundwater Monitoring Program
UCAR Carbon Company, Inc.
Niagara Falls, New York
September 2012

INTRODUCTION

The following document details an assessment and validation of analytical results for ground water samples collected in support of the annual monitoring program at the UCAR Carbon Site in Niagara Falls, New York (Site) during September 2012. Samples were submitted to TestAmerica Laboratory, located in Buffalo, NY. A sample collection and analysis summary is presented in Table 1. A summary of the analytical methodology is presented in Table 2. The validated analytical results are summarized in Table 3.

Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), and matrix spikes; and field quality assurance/quality control (QA/QC) samples . The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses); adherence to accuracy and precision criteria; transmittal errors; and anomalously high and low parameter values.

The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 2 and the documents entitled:

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

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

These will subsequently be referred to as the "Guidelines".

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 quality assurance/quality control (QA/QC) and all raw data provided.

SAMPLE HOLDING TIME AND PRESERVATION

The sample holding time criteria for the analyses are summarized in Table 2. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved and delivered on ice and stored by the laboratory at the required temperature (0-6°C).

GAS CHROMATOGRAPHY/MASS SPECTROMETER (GC/MS) - TUNING AND MASS CALIBRATION (INSTRUMENT PERFORMANCE CHECK) - VOLATILE ORGANIC COMPOUNDS (VOCs)

GC/MS

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 specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the methods 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.

Tuning compounds were analyzed at the required frequency throughout the volatile analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

GC/MS INITIAL CALIBRATION - VOCs

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

i) All relative response factors (RRFs) must be greater than or equal to 0.05.

ii) The percent relative standard deviation (RSD) values must not exceed 30.0 percent or a minimum coefficient of determination of 0.99 if quadratic equation calibration curves are used.

The initial calibration data for VOCs was reviewed. All compounds met the above criteria for sensitivity and linearity.

GC/MS CONTINUING CALIBRATION - VOCs

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 must be greater than or equal to 0.05.

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

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity. Some variability was observed between initial and continuing response factors. All associated sample results were qualified as estimated (see Table 4).

INITIAL CALIBRATION - INORGANIC ANALYSES

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For Inductively Coupled Plasma (ICP) analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For instrumental general chemistry analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve and resulting correlation coefficients must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits.

Analytical Method	*Parameter*	*Control Limits*
ICP/AA	Metals	90 - 110%
Instrumental Wet Chemistry	Ammonia, Nitrite, TKN	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and instrument general chemistry analyses was properly calibrated prior to sample analyses.

CONTINUING CALIBRATION - INORGANIC ANALYSES

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

CONTRACT REQUIRED DETECTION LIMIT (CRDL) STANDARD ANALYSES

To verify the linearity of the ICP calibration near the detection limit, a standard is analyzed which contains the ICP analytes at specified concentrations. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per 8-hour period.

The CRDL recoveries were acceptable.

LABORATORY BLANK ANALYSES

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

All blanks were non-detect with the exception of TKN present at a low concentration. The associated sample results with similar concentrations were qualified as non-detect (see Table 5).

SURROGATE SPIKE RECOVERIES

In accordance with the methods employed, all samples, blanks and QC samples analyzed for VOCs are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency.

All samples submitted for VOC determinations were spiked with three surrogate compounds prior to sample analysis. All surrogate recoveries were within the laboratory control limits.

INTERNAL STANDARDS (IS) ANALYSES

Internal standard data were evaluated for all VOC sample analyses.

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, internal standard compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the internal standard responses.

The sample internal standard results were evaluated against the following criteria:

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

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

All internal standard recoveries and retention times met the above criteria.

LABORATORY CONTROL SAMPLE (LCS) ANALYSES

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCSs were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

Inorganic Analyses
The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

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

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest . All percent recoveries and RPD values were within the laboratory control limits, demonstrating good analytical accuracy and precision.

Inorganic Analyses
The MS/MSD samples were spiked with the analytes of interest and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating good analytical accuracy and precision.

ICP SERIAL DILUTION

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. A minimum of one per 20 investigative samples or at least one per analytical batch must be

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.

A serial dilution was performed on each MS/MSD sample. All results met the criteria above.

ICP INTERFERENCE CHECK SAMPLE ANALYSIS (ICS)

To verify that the laboratory has established proper inter-element and background correction factors, 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 using the criteria in the "Guidelines". All ICS recoveries and results were acceptable.

FIELD QA/QC SAMPLES

The field QA/QC consisted of one trip blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was collected and submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 and 100 percent for water and soil samples, respectively. If the reported concentration in either the investigative sample or its duplicate is less than five times the RL, the evaluation criteria is one or two times the RL value for water and soil samples, respectively.

All field duplicate results were within acceptable agreement, demonstrating good sampling and analytical precision with some variability. A summary of the qualified sample results is presented in Table 6.

ANALYTE REPORTING

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the practical quantitation limit (PQL) but greater than the method detection limit (MDL) were qualified as estimated (J) in Table 3 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the PQL in Table 3.

TARGET COMPOUND IDENTIFICATION

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra (if applicable) were evaluated according to the identification criteria established by the methods. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

CONCLUSION

Based on this assessment, the data produced by TestAmerica were found to exhibit acceptable levels of accuracy and precision based on the provided information and may be used with the qualifications noted.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

				Analysis/Parameters					
Sample I.D.	*Location I.D.*	*Collection Date (mm/dd/yy)*	*Collection Time (hr:min)*	*VOCs*	*Selected Metals-total and dissolved*	*TKN*	*Nitrite*	*Ammonia*	*Comments*
TB-5513-092712	-	9/27/2012	-	X					Trip blank
WG-5513-092712-001	BW-3	9/27/2012	10:25	X	X	X	X	X	
WG-5513-092712-002	BW-1	9/27/2012	12:00	X	X	X	X	X	
WG-5513-092712-003	GW-9B	9/27/2012	13:00	X	X	X	X	X	
WG-5513-092712-004	MW-3	9/27/2012	13:25	X	X	X	X	X	
WG-5513-092712-005	GW-8B	9/27/2012	14:35	X	X	X	X	X	MS/MSD
WG-5513-092712-006	BW-2	9/27/2012	15:35	X	X	X	X	X	
WG-5513-092712-007	BW-2	9/27/2012	16:15	X	X	X	X	X	Field Duplicate of WG-5513-092712-006
WG-5513-092712-008	BW-4	9/27/2012	16:45	X	X	X	X	X	

Notes:

- = Not applicable.
TKN - Total Kjeldahl Nitrogen.
VOCs - Volatile Organic Compounds.
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TABLE 2

SUMMARY OF ANALYTICAL METHODS
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Parameter	*Method*
TCL VOCs	SW-846 8260[1]
Iron, Potassium and Zinc (total and diss)	SW-846 6010[1]
Nitrite	EPA 353.2[2]
Ammonia	EPA 350.1[2]
Total Kjeldahl Nitrogen	EPA 351.2[2]

Notes:

(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

TCL Target Compound List.

VOCs Volatile Organic Compounds.

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Location:		*BW-1*	*BW-2*	*BW-2*	*BW-3*
Sample Name:		*WG-5513-092712-002*	*WG-5513-092712-006*	*WG-5513-092712-007*	*WG-5513-092712-001*
Sample Date:		*9/27/2012*	*9/27/2012*	*9/27/2012*	*9/27/2012*
				(Duplicate)	
	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,1-Dichloroethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,2-Dichloroethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
1,2-Dichloropropane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	20 U	40 U	40 U	10 U
2-Hexanone	µg/L	10 U	20 U	20 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	20 U	20 U	5.0 U
Acetone	µg/L	20 U	40 U	40 U	10 U
Benzene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Bromodichloromethane	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Bromoform	µg/L	2.0 UJ	4.0 UJ	4.0 UJ	1.0 UJ
Bromomethane (Methyl bromide)	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Carbon disulfide	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Carbon tetrachloride	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Chlorobenzene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Chloroethane	µg/L	4.8	4.0 U	4.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	2.0 U	4.0 U	4.0 U	2.0
cis-1,3-Dichloropropene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Dibromochloromethane	µg/L	2.0 UJ	4.0 UJ	4.0 UJ	1.0 UJ
Ethylbenzene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Methylene chloride	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Styrene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Tetrachloroethene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Toluene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Trichloroethene	µg/L	2.0 U	4.0 U	4.0 U	1.0 U
Vinyl chloride	µg/L	2.0 U	4.0 U	4.0 U	5.7
Xylenes (total)	µg/L	4.0 U	8.0 U	8.0 U	2.0 U

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Location:		*BW-1*	*BW-2*	*BW-2*	*BW-3*
Sample Name:		*WG-5513-092712-002*	*WG-5513-092712-006*	*WG-5513-092712-007*	*WG-5513-092712-001*
Sample Date:		*9/27/2012*	*9/27/2012*	*9/27/2012*	*9/27/2012*
				(Duplicate)	
	Units				
Volatile Organic Compounds					
Wet Chemistry					
Ammonia	µg/L	880	480	480	450
Nitrite (as N)	µg/L	50 U	50 U	50 U	50 U
Total kjeldahl nitrogen (TKN)	µg/L	1900	1200	1200	1200
Metals					
Iron	µg/L	4900	8000 J	3800 J	1100
Iron (dissolved)	µg/L	850	1100	1800	770
Potassium	µg/L	6800	6200	6300	3800
Potassium (dissolved)	µg/L	6900	6200	6400	3800
Zinc	µg/L	13000	5600	3700	120
Zinc (dissolved)	µg/L	140	7 J	2.8 J	25

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

	Location:	*BW-4*	*GW-8B*	*GW-9B*	*MW-3*
	Sample Name:	*WG-5513-092712-008*	*WG-5513-092712-005*	*WG-5513-092712-003*	*WG-5513-092712-004*
	Sample Date:	*9/27/2012*	*9/27/2012*	*9/27/2012*	*9/27/2012*
	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	3.3	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	5.0	0.39 J	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	20 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	20 U	10 U	10 U	10 U
Benzene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	2.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Bromomethane (Methyl bromide)	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	0.52 J	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	14	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1700	23	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	2.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Ethylbenzene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	120	1.0 U	1.0 U	1.0 U
Toluene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	6.8	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	640	7.6	1.0 U	1.0 U
Vinyl chloride	µg/L	290	3.5	1.0 U	1.0 U
Xylenes (total)	µg/L	4.0 U	2.0 U	2.0 U	2.0 U

TABLE 3

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

	Location:	*BW-4*	*GW-8B*	*GW-9B*	*MW-3*
	Sample Name:	*WG-5513-092712-008*	*WG-5513-092712-005*	*WG-5513-092712-003*	*WG-5513-092712-004*
	Sample Date:	*9/27/2012*	*9/27/2012*	*9/27/2012*	*9/27/2012*
	Units				
Volatile Organic Compounds					
Wet Chemistry					
Ammonia	µg/L	4900	57	420	59
Nitrite (as N)	µg/L	31 J	50 U	50 U	50 U
Total kjeldahl nitrogen (TKN)	µg/L	4800	500 U	1100	770 U
Metals					
Iron	µg/L	14800	180	310	12300
Iron (dissolved)	µg/L	4500	140	200	1100
Potassium	µg/L	21200	5400	4500	3600
Potassium (dissolved)	µg/L	21200	5300	4500	2900
Zinc	µg/L	3900	980	11	59
Zinc (dissolved)	µg/L	23	320	6 J	6.2 J

Notes:
J - Estimated
U - Not detected.
UJ - Estimated reporting limit.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Parameter	*Calibration Date*	*Compound*	*%D*	*Associated Sample ID*	*Qualified Sample Results*	*Units*
VOCs	10/5/12	Bromoform	41	WG-5513-092712-001	1.0 UJ	µg/L
				WG-5513-092712-002	2.0 UJ	µg/L
				WG-5513-092712-003	1.0 UJ	µg/L
				WG-5513-092712-004	1.0 UJ	µg/L
				WG-5513-092712-005	1.0 UJ	µg/L
				WG-5513-092712-006	4.0 UJ	µg/L
				WG-5513-092712-007	4.0 UJ	µg/L
				WG-5513-092712-008	2.0 UJ	µg/L
VOCs	10/5/12	Dibromochloromethane	27	WG-5513-092712-001	1.0 UJ	µg/L
				WG-5513-092712-002	2.0 UJ	µg/L
				WG-5513-092712-003	1.0 UJ	µg/L
				WG-5513-092712-004	1.0 UJ	µg/L
				WG-5513-092712-005	1.0 UJ	µg/L
				WG-5513-092712-006	4.0 UJ	µg/L
				WG-5513-092712-007	4.0 UJ	µg/L
				WG-5513-092712-008	2.0 UJ	µg/L

Notes:
UJ - Estimated reporting limit.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Parameter	*Analysis Date*	*Analyte*	*Blank Result*	*Sample ID*	*Original Sample Result*	*Qualified Sample Result*
General Chemistry	10/1/12	Total kjeldahl nitrogen (TKN)	0.16	WG-5513-092712-004	0.77	0.77 U
				WG-5513-092712-005	0.50	0.50 U

Notes:
U - Not detected.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2012

Parameter	*Analyte*	*Original Sample ID*	*Qualified Original Result*	*Duplicate Sample ID*	*Qualified Duplicate Result*	*RPD*	*Units*
Metals	Iron (total)	WG-5513-092712-006	8.0 J	WG-5513-092712-007	3.8 J	71	mg/L

Notes:
J - Estimated.
RPD - Relative Percent Difference.

From: "Scrocchi, Susan" <sscrocchi@craworld.com>
Subject: FW: NYSDEC EDD Submittal - Ucar Carbon Co. DEC Investigation - CRA#005513
Date: November 15, 2012 10:46:26 AM EST
To: "Robert Bucci" <nia3344@verizon.net>

1 Attachment, 7 KB

Bob,
Attached is our deliverable to the DEC. we typically do not get a receipt. We only hear from them if there is an issue. I am putting the cd of the laboratory report in the mail today.
Please let me know if you need anything else.
sue

Susan C. Scrocchi
Conestoga-Rovers & Associates
2055 Niagara Falls Blvd, Suite 3
Niagara Falls, New York 14304

Phone (716)297-6150
Fax (716)297-2265
sscrocchi@craworld.com

An Equal Opportunity Employer

From: Coyne, Joseph
Sent: Thursday, November 15, 2012 8:15 AM
To: Scrocchi, Susan
Cc: Gabriel, Craig
Subject: FW: NYSDEC EDD Submittal - Ucar Carbon Co. DEC Investigation - CRA#005513

From: Coyne, Joseph
Sent: Thursday, November 08, 2012 11:58 AM
To: 'NYENVDATA'
Subject: RE: NYSDEC EDD Submittal - Ucar Carbon Co. DEC Investigation - CRA#005513

From: NYENVDATA [mailto:NYENVDATA@gw.dec.state.ny.us]
Sent: Thursday, November 08, 2012 11:56 AM
To: Coyne, Joseph
Subject: Re: NYSDEC EDD Submittal - Ucar Carbon Co. DEC Investigation - CRA#005513

there was no attachment with this email :)

>>> "Coyne, Joseph" <JCoyne@craworld.com> 11/8/2012 11:02 AM >>>
Please find the attached validated and signed EDD.

Joe Coyne
Conestoga-Rovers & Associates (CRA)

2055 Niagara Falls Blvd., Suite Three
Niagara Falls, NY 14304
Phone: 716-297-6150 ext. # 225
Cell: 716-704-4389
Fax: 716-297-6296
Email: jcoyne@CRAWorld.com
www.CRAworld.com
Think before you print P

20121108 1...C.zip (7 KB)

SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-25846-1	TB-5513-092712	Water	09/27/2012 0000	09/28/2012 0840
480-25846-2	WG-5513-092712-001	Water	09/27/2012 1025	09/28/2012 0840
480-25846-3	WG-5513-092712-002	Water	09/27/2012 1200	09/28/2012 0840
480-25846-4	WG-5513-092712-003	Water	09/27/2012 1300	09/28/2012 0840
480-25846-5	WG-5513-092712-004	Water	09/27/2012 1325	09/28/2012 0840
480-25846-6	WG-5513-092712-005	Water	09/27/2012 1435	09/28/2012 0840
480-25846-6MS	WG-5513-092712-005	Water	09/27/2012 1435	09/28/2012 0840
480-25846-6MSD	WG-5513-092712-005	Water	09/27/2012 1435	09/28/2012 0840
480-25846-7	WG-5513-092712-006	Water	09/27/2012 1535	09/28/2012 0840
480-25846-8	WG-5513-092712-007	Water	09/27/2012 1615	09/28/2012 0840
480-25846-9	WG-5513-092712-008	Water	09/27/2012 1645	09/28/2012 0840

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc. Job Number: 480-25846-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-25846-2	**WG-5513-092712-001**					
cis-1,2-Dichloroethene		2.0		1.0	ug/L	8260B
Vinyl chloride		5.7		1.0	ug/L	8260B
Iron		1.1		0.050	mg/L	6010B
Potassium		3.8		0.50	mg/L	6010B
Zinc		0.12		0.010	mg/L	6010B
Ammonia		0.45		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		1.2	B	0.20	mg/L	351.2
Dissolved						
Iron		0.77		0.050	mg/L	6010B
Potassium		3.8		0.50	mg/L	6010B
Zinc		0.025		0.010	mg/L	6010B
480-25846-3	**WG-5513-092712-002**					
Chloroethane		4.8		2.0	ug/L	8260B
Iron		4.9		0.050	mg/L	6010B
Potassium		6.8		0.50	mg/L	6010B
Zinc		13.0		0.010	mg/L	6010B
Ammonia		0.88		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		1.9	B	0.20	mg/L	351.2
Dissolved						
Iron		0.85		0.050	mg/L	6010B
Potassium		6.9		0.50	mg/L	6010B
Zinc		0.14		0.010	mg/L	6010B
480-25846-4	**WG-5513-092712-003**					
Iron		0.31		0.050	mg/L	6010B
Potassium		4.5		0.50	mg/L	6010B
Zinc		0.011		0.010	mg/L	6010B
Ammonia		0.42		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		1.1	B	0.20	mg/L	351.2
Dissolved						
Iron		0.20		0.050	mg/L	6010B
Potassium		4.5		0.50	mg/L	6010B
Zinc		0.0060	J	0.010	mg/L	6010B

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc. Job Number: 480-25846-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-25846-5	**WG-5513-092712-004**					
Iron		12.3		0.050	mg/L	6010B
Potassium		3.6		0.50	mg/L	6010B
Zinc		0.059		0.010	mg/L	6010B
Ammonia		0.059		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		0.77	B	0.20	mg/L	351.2
Dissolved						
Iron		1.1		0.050	mg/L	6010B
Potassium		2.9		0.50	mg/L	6010B
Zinc		0.0062	J	0.010	mg/L	6010B
480-25846-6	**WG-5513-092712-005**					
1,1-Dichloroethene		0.39	J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		23		1.0	ug/L	8260B
Trichloroethene		7.6		1.0	ug/L	8260B
Vinyl chloride		3.5		1.0	ug/L	8260B
Iron		0.18		0.050	mg/L	6010B
Potassium		5.4		0.50	mg/L	6010B
Zinc		0.98		0.010	mg/L	6010B
Ammonia		0.057		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		0.50	B	0.20	mg/L	351.2
Dissolved						
Iron		0.14		0.050	mg/L	6010B
Potassium		5.3		0.50	mg/L	6010B
Zinc		0.32		0.010	mg/L	6010B
480-25846-7	**WG-5513-092712-006**					
Iron		8.0		0.050	mg/L	6010B
Potassium		6.2		0.50	mg/L	6010B
Zinc		5.6		0.010	mg/L	6010B
Ammonia		0.48		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		1.2	B	0.20	mg/L	351.2
Dissolved						
Iron		1.1		0.050	mg/L	6010B
Potassium		6.2		0.50	mg/L	6010B
Zinc		0.0070	J	0.010	mg/L	6010B

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc. Job Number: 480-25846-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-25846-8	**WG-5513-092712-007**					
Iron		3.8		0.050	mg/L	6010B
Potassium		6.3		0.50	mg/L	6010B
Zinc		3.7		0.010	mg/L	6010B
Ammonia		0.48		0.020	mg/L	350.1
Total Kjeldahl Nitrogen		1.2	B	0.20	mg/L	351.2
Dissolved						
Iron		1.8		0.050	mg/L	6010B
Potassium		6.4		0.50	mg/L	6010B
Zinc		0.0028	J	0.010	mg/L	6010B
480-25846-9	**WG-5513-092712-008**					
1,1,2,2-Tetrachloroethane		3.3		2.0	ug/L	8260B
1,1-Dichloroethene		5.0		2.0	ug/L	8260B
Carbon disulfide		0.52	J	2.0	ug/L	8260B
Chloroform		14		2.0	ug/L	8260B
cis-1,2-Dichloroethene		1700		20	ug/L	8260B
Tetrachloroethene		120		2.0	ug/L	8260B
trans-1,2-Dichloroethene		6.8		2.0	ug/L	8260B
Trichloroethene		640		20	ug/L	8260B
Vinyl chloride		290		20	ug/L	8260B
Iron		14.8		0.050	mg/L	6010B
Potassium		21.2		0.50	mg/L	6010B
Zinc		3.9		0.010	mg/L	6010B
Ammonia		4.9		0.10	mg/L	350.1
Total Kjeldahl Nitrogen		4.8	B	0.40	mg/L	351.2
Nitrite as N		0.031	J	0.050	mg/L	353.2
Dissolved						
Iron		4.5		0.050	mg/L	6010B
Potassium		21.2		0.50	mg/L	6010B
Zinc		0.023		0.010	mg/L	6010B

METHOD SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 480-25846-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL BUF	SW846 8260B	
Purge and Trap	TAL BUF		SW846 5030B
Metals (ICP)	TAL BUF	SW846 6010B	
Preparation, Total Metals	TAL BUF		SW846 3005A
Metals (ICP)	TAL BUF	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL BUF		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Nitrogen, Ammonia	TAL BUF	MCAWW 350.1	
Nitrogen, Total Kjeldahl	TAL BUF	MCAWW 351.2	
Nitrogen, Total Kjeldahl	TAL BUF		MCAWW 351.2
Nitrogen, Nitrite	TAL BUF	MCAWW 353.2	

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 480-25846-1

Method	Analyst	Analyst ID
SW846 8260B	Dias, Nicole	ND
SW846 8260B	Ferguson, Tyler R	TRF
SW846 6010B	Hawrysiak, Allison	AH
MCAWW 350.1	Shantz, Katelyn	KS
MCAWW 351.2	Hacic, Nicole	NH
MCAWW 353.2	Sobol, Kevin	KS

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **TB-5513-092712**

Lab Sample ID: 480-25846-1
Client Matrix: Water

Date Sampled: 09/27/2012 0000
Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15252.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0257			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0257				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Dibromochloromethane	ND		0.32	1.0
Ethylbenzene	ND		0.74	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
4-Bromofluorobenzene (Surr)	92		73 - 120
Toluene-d8 (Surr)	108		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-001**

Lab Sample ID: 480-25846-2

Client Matrix: Water

Date Sampled: 09/27/2012 1025

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15253.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0319			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0319				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	2.0		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Dibromochloromethane	ND		0.32	1.0
Ethylbenzene	ND		0.74	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Vinyl chloride	5.7		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		66 - 137
4-Bromofluorobenzene (Surr)	96		73 - 120
Toluene-d8 (Surr)	114		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-002**

Lab Sample ID: 480-25846-3

Client Matrix: Water

Date Sampled: 09/27/2012 1200

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15254.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0341			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0341				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.6	2.0
1,1,2,2-Tetrachloroethane	ND		0.42	2.0
1,1,2-Trichloroethane	ND		0.46	2.0
1,1-Dichloroethane	ND		0.76	2.0
1,1-Dichloroethene	ND		0.58	2.0
1,2-Dichloroethane	ND		0.42	2.0
1,2-Dichloropropane	ND		1.4	2.0
2-Butanone (MEK)	ND		2.6	20
2-Hexanone	ND		2.5	10
4-Methyl-2-pentanone (MIBK)	ND		4.2	10
Acetone	ND		6.0	20
Benzene	ND		0.82	2.0
Bromodichloromethane	ND		0.78	2.0
Bromoform	ND		0.52	2.0
Bromomethane	ND		1.4	2.0
Carbon disulfide	ND		0.38	2.0
Carbon tetrachloride	ND		0.54	2.0
Chlorobenzene	ND		1.5	2.0
Chloroethane	4.8		0.64	2.0
Chloroform	ND		0.68	2.0
Chloromethane	ND		0.70	2.0
cis-1,2-Dichloroethene	ND		1.6	2.0
cis-1,3-Dichloropropene	ND		0.72	2.0
Dibromochloromethane	ND		0.64	2.0
Ethylbenzene	ND		1.5	2.0
Methylene Chloride	ND		0.88	2.0
Styrene	ND		1.5	2.0
Tetrachloroethene	ND		0.72	2.0
Toluene	ND		1.0	2.0
trans-1,2-Dichloroethene	ND		1.8	2.0
trans-1,3-Dichloropropene	ND		0.74	2.0
Trichloroethene	ND		0.92	2.0
Vinyl chloride	ND		1.8	2.0
Xylenes, Total	ND		1.3	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
4-Bromofluorobenzene (Surr)	92		73 - 120
Toluene-d8 (Surr)	107		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-003**

Lab Sample ID: 480-25846-4

Client Matrix: Water

Date Sampled: 09/27/2012 1300

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15255.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0404			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0404				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Dibromochloromethane	ND		0.32	1.0
Ethylbenzene	ND		0.74	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
4-Bromofluorobenzene (Surr)	90		73 - 120
Toluene-d8 (Surr)	106		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-004**

Lab Sample ID: 480-25846-5

Client Matrix: Water

Date Sampled: 09/27/2012 1325

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15256.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0426			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0426				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Dibromochloromethane	ND		0.32	1.0
Ethylbenzene	ND		0.74	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
4-Bromofluorobenzene (Surr)	87		73 - 120
Toluene-d8 (Surr)	103		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-005**

Lab Sample ID: 480-25846-6

Client Matrix: Water

Date Sampled: 09/27/2012 1435

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15257.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0449			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0449				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	0.39	J	0.29	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	23		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Dibromochloromethane	ND		0.32	1.0
Ethylbenzene	ND		0.74	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	7.6		0.46	1.0
Vinyl chloride	3.5		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		66 - 137
4-Bromofluorobenzene (Surr)	88		73 - 120
Toluene-d8 (Surr)	106		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-006**

Lab Sample ID: 480-25846-7

Client Matrix: Water

Date Sampled: 09/27/2012 1535

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15260.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0557			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0557				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
2-Butanone (MEK)	ND		5.3	40
2-Hexanone	ND		5.0	20
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromodichloromethane	ND		1.6	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	ND		0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	ND		3.2	4.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Dibromochloromethane	ND		1.3	4.0
Ethylbenzene	ND		3.0	4.0
Methylene Chloride	ND		1.8	4.0
Styrene	ND		2.9	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	ND		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	ND		1.8	4.0
Vinyl chloride	ND		3.6	4.0
Xylenes, Total	ND		2.6	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
4-Bromofluorobenzene (Surr)	89		73 - 120
Toluene-d8 (Surr)	107		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-007**

Lab Sample ID: 480-25846-8

Client Matrix: Water

Date Sampled: 09/27/2012 1615

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15261.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0620			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0620				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
2-Butanone (MEK)	ND		5.3	40
2-Hexanone	ND		5.0	20
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromodichloromethane	ND		1.6	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	ND		0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	ND		3.2	4.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Dibromochloromethane	ND		1.3	4.0
Ethylbenzene	ND		3.0	4.0
Methylene Chloride	ND		1.8	4.0
Styrene	ND		2.9	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	ND		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	ND		1.8	4.0
Vinyl chloride	ND		3.6	4.0
Xylenes, Total	ND		2.6	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
4-Bromofluorobenzene (Surr)	90		73 - 120
Toluene-d8 (Surr)	106		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-008**

Lab Sample ID: 480-25846-9

Client Matrix: Water

Date Sampled: 09/27/2012 1645

Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84159	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15262.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 0643			Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 0643				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.6	2.0
1,1,2,2-Tetrachloroethane	3.3		0.42	2.0
1,1,2-Trichloroethane	ND		0.46	2.0
1,1-Dichloroethane	ND		0.76	2.0
1,1-Dichloroethene	5.0		0.58	2.0
1,2-Dichloroethane	ND		0.42	2.0
1,2-Dichloropropane	ND		1.4	2.0
2-Butanone (MEK)	ND		2.6	20
2-Hexanone	ND		2.5	10
4-Methyl-2-pentanone (MIBK)	ND		4.2	10
Acetone	ND		6.0	20
Benzene	ND		0.82	2.0
Bromodichloromethane	ND		0.78	2.0
Bromoform	ND		0.52	2.0
Bromomethane	ND		1.4	2.0
Carbon disulfide	0.52	J	0.38	2.0
Carbon tetrachloride	ND		0.54	2.0
Chlorobenzene	ND		1.5	2.0
Chloroethane	ND		0.64	2.0
Chloroform	14		0.68	2.0
Chloromethane	ND		0.70	2.0
cis-1,2-Dichloroethene	1100	E	1.6	2.0
cis-1,3-Dichloropropene	ND		0.72	2.0
Dibromochloromethane	ND		0.64	2.0
Ethylbenzene	ND		1.5	2.0
Methylene Chloride	ND		0.88	2.0
Styrene	ND		1.5	2.0
Tetrachloroethene	120		0.72	2.0
Toluene	ND		1.0	2.0
trans-1,2-Dichloroethene	6.8		1.8	2.0
trans-1,3-Dichloropropene	ND		0.74	2.0
Trichloroethene	480	E	0.92	2.0
Vinyl chloride	220	E	1.8	2.0
Xylenes, Total	ND		1.3	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
4-Bromofluorobenzene (Surr)	89		73 - 120
Toluene-d8 (Surr)	106		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-008**

Lab Sample ID: 480-25846-9
Client Matrix: Water

Date Sampled: 09/27/2012 1645
Date Received: 09/28/2012 0840

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-84219	Instrument ID:	HP5973G
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G15269.D
Dilution:	20			Initial Weight/Volume:	5 mL
Analysis Date:	10/06/2012 1330	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	10/06/2012 1330				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		16	20
1,1,2,2-Tetrachloroethane	4.6	J	4.2	20
1,1,2-Trichloroethane	ND		4.6	20
1,1-Dichloroethane	ND		7.6	20
1,1-Dichloroethene	ND		5.8	20
1,2-Dichloroethane	ND		4.2	20
1,2-Dichloropropane	ND		14	20
2-Butanone (MEK)	ND		26	200
2-Hexanone	ND		25	100
4-Methyl-2-pentanone (MIBK)	ND		42	100
Acetone	ND		60	200
Benzene	ND		8.2	20
Bromodichloromethane	ND		7.8	20
Bromoform	ND		5.2	20
Bromomethane	ND		14	20
Carbon disulfide	ND		3.8	20
Carbon tetrachloride	ND		5.4	20
Chlorobenzene	ND		15	20
Chloroethane	ND		6.4	20
Chloroform	18	J	6.8	20
Chloromethane	ND		7.0	20
cis-1,2-Dichloroethene	1700		16	20
cis-1,3-Dichloropropene	ND		7.2	20
Dibromochloromethane	ND		6.4	20
Ethylbenzene	ND		15	20
Methylene Chloride	ND		8.8	20
Styrene	ND		15	20
Tetrachloroethene	150		7.2	20
Toluene	ND		10	20
trans-1,2-Dichloroethene	ND		18	20
trans-1,3-Dichloropropene	ND		7.4	20
Trichloroethene	640		9.2	20
Vinyl chloride	290		18	20
Xylenes, Total	ND		13	40

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
4-Bromofluorobenzene (Surr)	92		73 - 120
Toluene-d8 (Surr)	110		71 - 126

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-001**

Lab Sample ID: 480-25846-2
Client Matrix: Water

Date Sampled: 09/27/2012 1025
Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1644			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	1.1		0.019	0.050
Potassium	3.8		0.10	0.50
Zinc	0.12		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1429			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.77		0.019	0.050
Potassium	3.8		0.10	0.50
Zinc	0.025		0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-002**

Lab Sample ID: 480-25846-3
Client Matrix: Water

Date Sampled: 09/27/2012 1200
Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1646			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	4.9		0.019	0.050
Potassium	6.8		0.10	0.50
Zinc	13.0		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1431			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.85		0.019	0.050
Potassium	6.9		0.10	0.50
Zinc	0.14		0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-003**

Lab Sample ID: 480-25846-4

Client Matrix: Water

Date Sampled: 09/27/2012 1300

Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1649			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.31		0.019	0.050
Potassium	4.5		0.10	0.50
Zinc	0.011		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1434			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.20		0.019	0.050
Potassium	4.5		0.10	0.50
Zinc	0.0060	J	0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-004**

Lab Sample ID: 480-25846-5

Client Matrix: Water

Date Sampled: 09/27/2012 1325

Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1651			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	12.3		0.019	0.050
Potassium	3.6		0.10	0.50
Zinc	0.059		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1436			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	1.1		0.019	0.050
Potassium	2.9		0.10	0.50
Zinc	0.0062	J	0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-005**

Lab Sample ID: 480-25846-6
Client Matrix: Water

Date Sampled: 09/27/2012 1435
Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1653			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.18		0.019	0.050
Potassium	5.4		0.10	0.50
Zinc	0.98		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1438			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	0.14		0.019	0.050
Potassium	5.3		0.10	0.50
Zinc	0.32		0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-006**

Lab Sample ID: 480-25846-7

Client Matrix: Water

Date Sampled: 09/27/2012 1535

Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1709			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	8.0		0.019	0.050
Potassium	6.2		0.10	0.50
Zinc	5.6		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1454			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	1.1		0.019	0.050
Potassium	6.2		0.10	0.50
Zinc	0.0070	J	0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-007**

Lab Sample ID: 480-25846-8

Client Matrix: Water

Date Sampled: 09/27/2012 1615

Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1711			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	3.8		0.019	0.050
Potassium	6.3		0.10	0.50
Zinc	3.7		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1456			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	1.8		0.019	0.050
Potassium	6.4		0.10	0.50
Zinc	0.0028	J	0.0015	0.010

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

Client Sample ID: **WG-5513-092712-008**

Lab Sample ID: 480-25846-9

Client Matrix: Water

Date Sampled: 09/27/2012 1645

Date Received: 09/28/2012 0840

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-83293	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-82992	Lab File ID:	I2100112A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1714			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	14.8		0.019	0.050
Potassium	21.2		0.10	0.50
Zinc	3.9		0.0015	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-83291	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-83049	Lab File ID:	I2100112A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/01/2012 1459			Final Weight/Volume:	50 mL
Prep Date:	10/01/2012 0830				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Iron	4.5		0.019	0.050
Potassium	21.2		0.10	0.50
Zinc	0.023		0.0015	0.010

General Chemistry

Client Sample ID: **WG-5513-092712-001**

Lab Sample ID: 480-25846-2 Date Sampled: 09/27/2012 1025

Client Matrix: Water Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.45		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1415						
Total Kjeldahl Nitrogen	1.2	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1818						
Prep Batch: 480-83056	Prep Date: 09/30/2012 2304						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0040						

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

General Chemistry

Client Sample ID: **WG-5513-092712-002**

Lab Sample ID: 480-25846-3

Client Matrix: Water

Date Sampled: 09/27/2012 1200

Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.88		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1416						
Total Kjeldahl Nitrogen	1.9	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1922						
Prep Batch: 480-83056	Prep Date: 09/30/2012 2304						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0041						

General Chemistry

Client Sample ID: **WG-5513-092712-003**

Lab Sample ID: 480-25846-4 Date Sampled: 09/27/2012 1300

Client Matrix: Water Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.42		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1417						
Total Kjeldahl Nitrogen	1.1	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1922						
Prep Batch: 480-83056	Prep Date: 09/30/2012 2304						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0045						

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

General Chemistry

Client Sample ID: **WG-5513-092712-004**

Lab Sample ID: 480-25846-5

Client Matrix: Water

Date Sampled: 09/27/2012 1325

Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.059		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1418						
Total Kjeldahl Nitrogen	0.77	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1749						
Prep Batch: 480-83056	Prep Date: 09/30/2012 2304						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0046						

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-25846-1

General Chemistry

Client Sample ID: **WG-5513-092712-005**

Lab Sample ID: 480-25846-6

Client Matrix: Water

Date Sampled: 09/27/2012 1435

Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.057		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1419						
Total Kjeldahl Nitrogen	0.50	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1749						
Prep Batch: 480-83056	Prep Date: 09/30/2012 2304						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0047						

General Chemistry

Client Sample ID: **WG-5513-092712-006**

Lab Sample ID: 480-25846-7 Date Sampled: 09/27/2012 1535

Client Matrix: Water Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.48		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1422						
Total Kjeldahl Nitrogen	1.2	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1630						
Prep Batch: 480-83057	Prep Date: 09/30/2012 2308						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0050						

General Chemistry

Client Sample ID: **WG-5513-092712-007**

Lab Sample ID: 480-25846-8 Date Sampled: 09/27/2012 1615

Client Matrix: Water Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	0.48		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1423						
Total Kjeldahl Nitrogen	1.2	B	mg/L	0.15	0.20	1.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1630						
Prep Batch: 480-83057	Prep Date: 09/30/2012 2308						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0051						

General Chemistry

Client Sample ID: **WG-5513-092712-008**

Lab Sample ID: 480-25846-9 Date Sampled: 09/27/2012 1645

Client Matrix: Water Date Received: 09/28/2012 0840

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ammonia	4.9		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-83422	Analysis Date: 10/02/2012 1649						
Total Kjeldahl Nitrogen	4.8	B	mg/L	0.30	0.40	2.0	351.2
Analysis Batch: 480-83224	Analysis Date: 10/01/2012 1903						
Prep Batch: 480-83057	Prep Date: 09/30/2012 2308						
Nitrite as N	0.031	J	mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-82944	Analysis Date: 09/29/2012 0052						

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: NF office

Phone: _____ Fax: _____

COC NO.: 37553

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 5513.02	Laboratory Name: Test America	Lab Location: Amherst	SSOW ID:
Project Name: UCAR	Lab Contact: Melissa Deyo	Lab Quote No:	Cooler No:
Project Location: Hyde Park Blvd N.F.			Carrier:
Chemistry Contact: S. Scrocchi			Airbill No:
Sampler(s): D. Tyran			Date Shipped: 9.28.12

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	Encores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Ammonia	TAL Metals	TAL Metals Dissolved	TCL OLM04	Nitrite Nitrate	TKN					MS/MSD Request	Comments Special Instructions:
	TB 5513.092712	9.27.12		TB	G		X							2				X								
2	WG 5513.092712.001	9.27.12	1025	WG	G	X	X	X	X					7	X	X	X	X	X	X						
3	WG 5513.092712.002	9.27.12	1200	WG	G	X	X	X	X					7	X	X	X	X	X	X						
4	WG 5513.092712.003	9.27.12	1300	WG	G	X	X	X	X					7	X	X	X	X	X	X						
5	WG 5513.092712.004	9.27.12	1325	WG	G	X	X	X	X					7	X	X	X	X	X	X						
6	WG 5513.092712.005	9.27.12	1435	WG	G	X	X	X	X					21	X	X	X	X	X	X					X	
7	WG 5513.092712.006	9.27.12	1535	WG	G	X	X	X	X					7	X	X	X	X	X	X						
8	WG 5513.092712.007	9.27.12	1615	WG	G	X	X	X	X					7	X	X	X	X	X	X						
9	WG 5513.092712.008	9.27.12	1645	WG	G	X	X	X	X					7	X	X	X	X	X	X						
10																										
11																										
12																										
13																										
14																										
15																										

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

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

Total Number of Containers: 72

All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1. Dave Tyran	CRA	9.28.12	0800	1.			
2.				2.			
3.				3.			

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

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form COC-108 (20110304)

CONTENTS

PAGE NO.	REFERENCE	DATE

Daily Log

(1)

9-27-12 Sunny 49-85°F

0745 DJT on-site setup fieldbook

0800 Meet Bob Bucci get site keys

Start w/L round

0915 Complete W/L Round, calibrate meter purge MW 3 Dry

Purge & Sample BW-3 problems with both mini-monsoon pumps had to cut wires and attach directly to battery

1120 Purge & Sample BW-1

1205-1220 Lunch

1220 Purge & Sample GW-9B

Trip Blank = TB-5513-092712

1315 Sample MW-3

1345 Purge & Sample GW8B, BW-2

BW-4

Clean up

1705 off-site

Dave Tyson

(2)

Hydraulic Monitoring

Date 9.27.12 Crew DJT
Project # 5513-02

Well #	Time	W/L	Sounded Depth
MW-3	0852	12.80	15.21
BW-1	0818	~~17.07~~ 18.37	~~27.63~~ 29.93
BW-2	0914	14.25	24.71
BW-3	0836	14.12	23.47
BW-4	0832	13.87	21.40
GW8B	0810	10.82	29.38
GW9B	0858	14.07	31.96
MW-1	0825	11.74	23.37
MW-2	0911	15.72	24.63
BW-5	0847	11.01	26.10
BW-6	0907	16.96	26.21

Inst. Control #

W/L Meter 06181

David Tyson

(3)

Calibration Log

9.27.12 Calibrate Horiba U-22
Control # NF04293 with Auto Cal
Solution Lot# C252617 exp 5/20/13

	Before	After
pH 4.00	3.94	3.97
Cond 4.49	4.67	4.51
Turb 0.0	0.2	0.0

Vol/Analysis

1x 250ml plas. w/ H_2SO_4 Ammonia, TKN
1x 250 ml plas w/ HNO_3 TAL Metals
1x 250 ml plas w/ HNO_3 Dis TCL Metals
3x 40ml w/HCL TCL VOCs
1x 125ml plas Nitrate, Nitrite

David Tyson

(4)

MW-3

Date 9-27-12 Crew DJT
Project # 5513-02
Condition Good
Depth 2" 0 – 15.21
Initial w/L 12.80
Vol Calc 15.21 – 12.8 = 2.41 x .16 = 0.4
Method ~~Dedic~~ Teflon Bailer

Purge Record

Time	Vol	pH	Cond	Temp	Turb
0939	0.4	6.49	0.551	14.93	383
0942	0.8	6.76	0.496	14.08	828
0944	1.2	6.96	0.485	13.87	428

Well dry @ 1.4 gallons

Initial w/Q Slightly Cloudy light orange

Final w/Q Cloudy light Brown

Final w/L 14.90

(5)

Sample Record

Date 9-27-12
Crew DJT
Method dedicated Teflon Bailer

Vol/Analysis See pg 3

Sample Time 1325
Sample ID WG-5513-092712-004

W/Q cloudy, Brown

pH	Cond	Temp	Turb
8.00	0.527	14.00	192

CofC # 37553

Inst. Control #'s
w/L meter 06204
Horiba U-22 NF04243

David J Tyghan

(6) BW-1

Date 9-27-12 Crew DST
Project # 5513 02
Condition Good
Depth 4" 0-20.9 3" 20.9 - 35.9
Initial w/L 18.37
Vol. Calc 20.9 - 18.37 = 2.53 x .65 = 1.6
35.9 - 20.9 = 15 x .37 = 5.6 + 1.6 = 7.2

Purge Method Monsoon Pump

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1126	7.2	7.83	1.65	12.25	37.4
1130	14.4	7.24	1.70	11.70	19.6
1134	21.6	7.10	1.71	11.51	19.9

Initial W/Q Cloudy Brown

Final W/Q Clear, Colorless

Final W/L 20.12

(7)

Sample Record

Date 9-27-12
Crew DST
Method dedicated Teflon Bailer

Vol/Analysis See pg 3

Sample Time 1200
Sample ID WG-5513-092712-002

W/Q Cloudy, Brown

pH	Cond	Temp °C	Turb
7.27	1.71	13.95	219

CofC #
37553

Inst. Control #s
W/L Heln 06204
Horiba U-22 NF 04293

Dave J Tyran

(8)

BW-2

Date 9-27-12 Crew DJT
Project # 5513-02
Condition Good
Depth 4" 0-21.1 3" 21.1-37.1
Initial w/L 14.25
Vol. Cal 21.1-14.25 = 6.85 x .65 = 4.4
37.1-21.1 = 16 x .37 = 5.9 + 4.4 = 10.3
Method Monsoon Pump

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1513	10.3	6.86	2.37	11.84	18.8
1517	20.6	6.73	2.40	11.47	14.2
1521	30.9	6.62	2.39	11.37	13.7

Initial w/Q Clear, colorless

Final w/Q Same

Final w/L 1466

DUP Sample Record

(9)

Date 9-27-12
Crew DJT
Method dedicated Teflon Bailer

Vol/Analysis see pg 3 x 2

Sample Time 1535
Sample ID WG-5513-092712-006
Blind Dup WG-5513-092712 007
Time 1615

W/Q Slightly cloudy
light Brown

pH	Cond	Temp °C	Turb
6.88	2.37	12.43	79.1

CofC#
37553

Inst. Control #'s
w/L Meter 06204
Horiba U-22 NF04293

David J Tyson

(10)

BW-3

Date 9-27-12 Crew DJT
Project # 5513.02
Condition Good
Depth 4"0-9.7 3" 9.7-23.47
Initial w/L 14.12
Vol. Calc. 23.47-14.12 = 9.35 x .37 = 3.4
Method Monsoon Pump

Purge Record

Time	Vol	pH	Cond	Temp	Turb
1003	3.4	6.87	1.62	11.62	14.6
1004	6.8	6.82	1.69	11.24	7.8
1006	10.2	6.90	1.70	11.17	6.9

Initial w/Q Clear, Colorless

Final w/Q Same

Final w/L 14.22

(11)

Sample Record

Date 9-27-12
Crew DJT
Method Dedicated Teflon Bailer

Vol/Analysis See pg 3

Sample Time 1025
Sample ID WG-5513-092712-001

W/Q Clear, Colorless

pH	Cond	Temp	Turb
7.38	1.63	11.40	12.6

CofC #
37553

Inst. Control #'s
W/L Meter 06204
Horiba U-22 NF04293

Dave J Taylor

(12)

BW-4

Date 9-27-12 Crew DJT

Project # 5513-02

Condition Good

Depth 4" 0-13.9 3" 13.9-27.5

Initial w/L 13.87

Vol. Calc 27.5 - 13.9 = 13.6 x .37 = 5.0

Method Monsoon Pump

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1604	5.0	7.39	1.69	12.46	>1000
1606	10.0	7.12	1.55	12.03	228
1609	15.0	6.90	1.67	11.71	102
1612	20.0	6.89	1.67	12.12	61.1
1614	25.0	6.97	1.59	11.82	29.4

Initial w/Q Cloudy Dark Brown

Final w/Q Clear, Colorless

Final w/L 15.15

(13)

Sample Record

Date 9-27-12

Crew DJT

Method dedicated Teflon Bailer

Vol/Analysis See pg 3

Sample Time 1645

Sample ID WG-5513-092712-008

w/Q cloudy, Brown

pH	Cond	Temp °C	Turb
6.90	~~1.6~~ 1.64	14.21	154

CofC # 37553

Inst. Control #'s

w/L meter 06204

Horiba U-22 NF04293

DJ Tyson

(14)

GW-8B

Date 9-27-12 Crew DJT
Project # 5513-02
Condition Good
Depth 3" 0-29.5
Initial w/L 10.82
Vol. Calc 29.5-10.82 = 18.68 x .37 = 6.9
Method Monsoon pump

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1356	6.9	7.80	1.40	12.71	231
1400	13.8	7.48	1.58	11.65	88.1
1404	20.7	7.43	1.59	11.40	72.3
1408	27.6	7.28	1.59	11.29	54.2
1413	34.5	7.25	1.58	11.40	45.1

Initial w/Q Cloudy. Light gray

Final w/Q Clear, colorless
Some suspended sediments

Final w/L 28

(15) MS/MSD

Sample Record

Date 9-27-12
Crew DJT
Method dedicated Teflon Bailer

Vol/Analysis See pg 3 x 3

Sample Time 1435
Sample ID WG-5513-092712-005

w/Q Clear colorless

pH	Cond	Temp °C	Turb
7.62	1.61	12.55	37.2

CofC# 37553

Inst. Control #'s
Horiba U-22 NF04293
W/L Meter 06204

Dave J Tyson

(16)

GW-9B

Date 9-27-12 Crew DJT

Project # 5513-02

Condition Good

Depth 3" 0-31.7

Initial w/L 14.07

Vol. Calc. 31.7-14.07=17.63 x .37=6.5

Method Monsoon pump

Purge Record

Time	Vol	pH	Cond	Temp°C	Turb
1233	6.5	7.38	2.32	12.66	13.9
1237	13.0	7.13	2.31	11.89	10.5
1240	19.5	6.88	2.35	11.42	8.6

Initial w/Q Clear, colorless

Final w/Q Same

Final w/L 23.30

Sample Record (17)

Date 9-27-12

Crew DJT

Method dedicated Teflon Bailer

Vol/Analysis See pg 3

Sample Time 1300

Sample ID WG-5513-092712-003

W/Q clear, colorless

pH	Cond	Temp°C	Turb
6.96	2.38	12.34	18.3

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David J Ryan