US EPA ARCHIVE DOCUMENT

Groundwater Monitoring Report

October 2011 Sampling Event

Former Chamberlain Manufacturing Corporation

550 Esther Street

Waterloo Iowa

EPA Docket Nos.

RCRA-07-2010-002

CERCLA-07-2010-0005

December 16, 2011

Terracon Project No. 07107020

Prepared for:

Chamberlain Manufacturing Corporation
Elmhurst, Illinois

Prepared by:

Terracon Consultants, Inc.
Bettendorf, Iowa

512558
RCRA

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Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

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Date: December 16, 2011

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To: US Environmental Protection Agency
Region VII
Air and Waste Management Division
901 North 5th Street
Kansas City, KS 66101-2907

Attention: Mr. Bruce A. Morrison

Re: Former Chamberlain Manufacturing Site
550 Esther Street, Waterloo, Iowa

Project No. 07107020

We are transmitting herewith:

Item	Date	Description
2	12/16/11	Groundwater Monitoring Report – October 2011 Sampling Event

Remarks:

If you have any questions or we may be of any further assistance, please do not hesitate to contact this office.

Sincerely,

Terracon

By:

John F. Brimeyer, Environmental Manager

N:\Projects\2010\07107020\mail\0b020t10.doc

cc: Eric Reeves, Chamberlain Manufacturing
Mike Dolan, Jones-Day
Chris Western, City of Waterloo
Dan Cook, Iowa Department of Natural Resources

US EPA ARCHIVE DOCUMENT

Terracon

December 16, 2011

United States Environmental Protection Agency
Region 7
Air, RCRA and Toxics Division
901 North 5th Street
Kansas City, KS 66101

Attention: Mr. Bruce Morrison

Re: Groundwater Monitoring Report
October 2011 Sampling Event
Former Chamberlain Manufacturing Corporation
550 Esther Street
Waterloo, Iowa
EPA Docket Nos. RCRA-07-2010-002 and CERCLA-07-2010-0005

Dear Mr. Morrison:

Terracon is pleased to submit this Groundwater Monitoring Report (Report). This Report provides a summary of site monitoring activities completed by Terracon in October 2011.

Activities were completed in accordance with the approved Quality Assurance Project Plan (QAPP) dated August 18, 2006 and the Groundwater Field Sampling Plan dated September 27, 2006.

Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

Kathleen E. Igl

for Holly Moriarty, EIT, LEED AP
Environmental Engineer

John F Brimeyer

John F. Brimeyer, PE, REM
Environmental Manager

HMM/JFB/jb2

Terracon Consultants, Inc. 870 40th Avenue Bettendorf, Iowa 52722
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Terracon

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ACRONYMS & ABBREVIATIONS

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AOC ..... Area of Concern
City ..... City of Waterloo
CO_2 ..... Carbon Dioxide
DO ..... Dissolved Oxygen
EPA 7 ..... United States Environmental Protection Agency Region 7
EQL ..... Estimated Quantitation Limit
ESC ..... Environmental Science Corporation
eV ..... electron-volt
FSP ..... Field Sampling Plan
Grant ..... Brownfields Assessment Grant
Green ..... Howard R. Green Company
HAL ..... Health Advisory Level
IDNR ..... Iowa Department of Natural Resources
m/day ..... meters per day
MCL ..... Maximum Contaminant Level
MDL ..... Method Detection Limit
mg/kg ..... milligrams per kilogram, generally equivalent to ppm
mg/L ..... milligrams per liter, generally equivalent to ppm
MNA ..... Monitored Natural Attenuation
ORP ..... Oxygen Reduction Potential
PAH ..... Polycyclic Aromatic Hydrocarbon
PCBs ..... Polychlorinated Bi-Phenyls
PCE ..... Perchloroethylene (or Tetrachloroethylene)
PID ..... Photoionization Detector
ppb ..... parts per billion
ppm ..... parts per million
ppmi ..... parts per million isobutylene equivalents
PRG ..... Preliminary Remediation Goals
QA ..... Quality Assurance
QAPP ..... Generic Quality Assurance Project Plan
QC ..... Quality Control
RBCA ..... Risk-Based Corrective Action
REC ..... Recognized Environmental Condition
RPD ..... Relative Percent Difference
SARA ..... Superfund Amendments and Reauthorization Act
Spec.Cond. ..... Specific Conductance
Summary ..... Soil Assessment Summary
SVOC ..... Semi-Volatile Organic Compounds
TCE ..... Trichloroethylene
TDS ..... Total Dissolved Solids
TestAmerica ..... TestAmerica, Inc
TSOP ..... Terracon Standard Operating Procedure-Bettendorf Office
µg/L ..... micrograms per liter, generally equivalent to ppb
USEPA ..... United States Environmental Protection Agency
VOC ..... Volatile Organic Compounds

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GROUNDWATER MONITORING REPORT
OCTOBER 2011 SAMPLING EVENT
FORMER CHAMBERLAIN MANUFACTURING CORPORATION
550 ESTHER STREET
WATERLOO, IOWA

Project No. 07107020
December 16, 2011

1.0 INTRODUCTION

Terracon has completed groundwater monitoring activities at the former industrial property located at 550 Esther Street, Waterloo, Iowa. The monitoring activities were conducted in accordance with the USEPA approved QAPP[1] and the Groundwater FSP[2]. A Topographic Vicinity Map is included as Figure 1 in Appendix A. A Site Map is included as Figure 2.

This Groundwater Monitoring Report (Report) is submitted in accordance with the requirements of the UAO, Docket Nos. RCRA 07-2010-002 and CERCLA 07-2010-005 dated April 20, 2010 and Task I of the SOW attached to the UAO. Capitalized terms not defined herein have the definitions set for the in the UAO or the SOW.

1.1 Site Conditions

The Property is an irregularly shaped parcel containing approximately 22.8 acres and located at 550 Esther Street in Waterloo, Iowa. A Topographic Map is included as Figure 1 in Appendix A; a Site Diagram is included as Figure 2.

Chamberlain Manufacturing produced metal washer wringers and projectile metal parts from approximately 1919 until 1996 when it was sold to Atlas Warehouse L.C. for use as a warehousing facility. The City acquired the Property from Atlas Warehouse L.C in 2005 in an effort to facilitate redevelopment and has demolished the buildings on the Property.

The Property is zoned Heavy Industrial (M-2) by the City. The Property is adjoined by park land to the north and south, single family residential housing to the west, and Virden Creek followed by a golf course to the east. Virden Creek is within approximately 100 feet of the Property at its closest point. Gates Park adjoins the Property to the north across Louise Street, to the east across Virden Creek, and to the south across the railroad tracks. Single family residences are located across East 4th Street to the west of the Property. Single family residences are also located along the east side of East 4th between Anita and Louise Streets.

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[1] *Quality Assurance Project Plan, Revision 1, Former Industrial Property, 550 Esther Street, Waterloo, Iowa, Terracon, August 18, 2006.*

[2] *Groundwater Field Sampling Plan, Former Industrial Property, 550 Esther Street, Waterloo, Iowa, Terracon, September 27, 2006*

1.2 Previous Assessment Activities

Previous assessment activities were conducted by Green on behalf of the City using USEPA Brownfields Assessment funding. Assessment activities included the installation of 14 onsite groundwater monitoring wells (MW-1 through MW-14) and eight offsite groundwater monitoring wells (OSMW-1 through OSMW-8). The Green assessment identified reported concentrations of chlorinated solvents in groundwater that exceeded Iowa Statewide Standards for a protected groundwater source. Analytical results indicate that the reported concentrations of PCE and TCE exceed MCLs in off-site groundwater monitoring wells located downgradient from the site. Previous assessment activities have not identified the lateral extent of impact in the downgradient direction. The following documents, prepared by Green, are available from the USEPA.

- Phase I Environmental Site Assessment, Former Chamberlain Manufacturing Property, 550 Esther Street, Parcel ID 8913-13-176-002, Waterloo, Iowa. Howard R. Green Company, May 2004.
- Phase II Environmental Site Assessment, Former Chamberlain Manufacturing Property, 550 Esther Street, Parcel ID 8913-13-176-002, Waterloo, Iowa. Howard R. Green Company, January 2005.
- Supplemental Phase II Environmental Site Assessment, Former Chamberlain Manufacturing Facility, Parcel ID 8913-13-176-002, 550 Esther Street, Waterloo, Iowa. Howard R. Green Company, September 2005.

Subsequently, Terracon completed supplemental site assessment activities to determine the lateral extent of chlorinated solvent impact in groundwater south and west of the subject site, Terracon advanced 25 Geoprobe soil borings (OSGP-1 through OSGP-25) and collected groundwater samples at each soil boring location for analysis of chlorinated solvents. Based on the results of groundwater sampling activities, six additional groundwater monitoring wells (OSMW-9 through OSMW-14) were installed offsite. To evaluate for the potential of dense non-aqueous phase liquids (DNAPL), two additional soil borings were advanced onsite to the top of bedrock near MW-1 and MW-12 and converted into monitoring wells MW-15 and MW-16, respectively.

Quarterly groundwater monitoring events were conducted in January 2007, May 2007, October 2007, June 2008, November 2008, and June 2009. The results of the groundwater sampling activities were presented in a Soil and Groundwater Assessment Report dated April 30, 2007 and in Quarterly Groundwater Assessment Reports dated August 22, 2007, February 11, 2008, November 6, 2008, January 5, 2009, and July 22, 2009.

1.3 Project Objectives

In correspondence dated August 22, 2011, the USEPA requested that one supplemental groundwater monitoring event be completed to evaluate current groundwater conditions. Results of groundwater monitoring will be used to evaluate the need for an expansion of vapor intrusion study area south and west of the site.

2.0 FIELD SAMPLING ACTIVITIES

Terracon completed the following tasks.

2.1 Groundwater Sampling Activities

On October 17, 18, and 19, 2011, Terracon collected quarterly groundwater samples from onsite groundwater monitoring wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15, and MW-16 and offsite groundwater monitoring wells OSMW-3, OSMW-4, OSMW-5, OSMW-7, OSMW-8, OSMW-9, OSMW-10, OSMW-11, OSMW-13, and OSMW-14. Groundwater was not encountered in monitoring wells MW-4, MW-8, and MW-11. The locations of groundwater monitoring wells are depicted on Figure 2, Appendix A.

2.2 Methodology

Terracon followed standard procedures for sampling, physical measurements, equipment cleaning, and equipment calibration. The TSOPs that accompanied the sampling team incorporate industry protocols, internal procedures, and equipment operation manuals. The Groundwater and Soil FSPs specified the appropriate TSOPs for use at the site. Terracon recorded discrepancies, clarifications, and corrective actions for QA, if applicable, in the field logbook. Terracon implemented the TSOPs identified in Table 2-1 during fieldwork activities.

Table 2-1 Field Activities TSOPs

Reference No.	Title
E.10	Project Mobilization
E.20	Standard Safe Operating Procedures for Hazardous Waste Operations
E.30	Chain of Custody Documentation
E.50	Sampling – Environmental Representativeness
E.300	Sampling & Drilling Platforms
E.470	Sample Handling – Groundwater (Non-Hazardous)
E.530	pH Field Screening – Water
E.540	Conductivity Field Screening – Water
E.570	Temperature Field Screening
E.1400	Well Development – Parametric

Reference No.	Title
E.1820	Field Measurement – Groundwater
E.2000	Groundwater Sampling – Low Flow Pumping
E.2210	Site Housekeeping - General
E.2220	Disposal of Spent Supplies
E.2240	Site Security Procedures
E.2405	Cleaning – General
E.2410	Cleaning - Manual Washing

3.0 ASSESSMENT RESULTS

3.1 Physical Measurements and Field Screening

In conjunction with current groundwater sampling activities, Terracon obtained groundwater elevation data from the monitoring wells to estimate groundwater flow direction. Terracon modeled the data using a Kriging data evaluation method packaged with Surfer™ contouring software. Terracon created groundwater contours using the water levels and contours generated by the software. Figure 3 in Appendix A depicts the groundwater contours in the lower aquifer.

3.1.1 Low Flow Sampling

Terracon used low flow pumping techniques for purging and sampling groundwater monitoring wells. Terracon pumped groundwater from each well using a peristaltic pump set at a pumping rate of less than one liter per minute.

Field MNA parameters including pH, temperature, specific conductance, ORP, and DO were monitored during purging and sampling activities using a flow-through cell and a YSI-556 multi-meter. These parameters are non-critical; however, the concentrations are indicators of oxidation or reduction potential as well as well stabilization. Field MNA parameters were recorded at the start of well purging activities and at one-well volume intervals. Well purging activities were considered complete when the temperature change was less than 0.5 degrees Centigrade (°C), the specific conductance change was less than 3 percent, and the pH change was less than 0.1 pH units.

Upon completion of well purging activities, the final MNA parameters were recorded in the field book. Terracon then filled the laboratory-prepared containers directly from the discharge end of the tubing for laboratory analysis.

Table 3-1 Monitored Natural Attenuation Parameters

Parameter	Field/Laboratory	Method
pH	Field	YSI-556 multi-meter with flow-cell or equivalent
Specific Conductance	Field	YSI-556 multi-meter with flow-cell or equivalent
Temperature	Field	YSI-556 multi-meter with flow-cell or equivalent
ORP	Field	YSI-556 multi-meter with flow-cell or equivalent
DO	Field	YSI-556 multi-meter with flow-cell or equivalent
VOCs	Laboratory	EPA SW-846 Method 8260

3.1.2 Laboratory Measurements

Terracon submitted groundwater samples to TestAmerica, Cedar Falls, Iowa for laboratory analysis in accordance with the Groundwater FSP.

3.2 Groundwater Quarterly Analytical Results

Terracon collected groundwater samples for analysis of laboratory MNA parameters. Nine VOCs were detected in one or more of the groundwater samples. Groundwater analytical results are summarized in Table 3-2.

Table 3-2 Groundwater Analytical Summary

Chemical	Frequency of Detection	Frequency above PRGs	Maximum Concentration (µg/L)	Location of Maximum Concentration
Bromomethane	1 of 23 (4%)	0 of 23 (0%)	4.49	MW-1
Chloroform	1 of 23 (4%)	1 of 23 (4%)	1.33	MW-3
cis-1,2 Dichloroethene	11 of 23 (48%)	4 of 23 (17%)	588	MW-6
trans-1,2 Dichloroethene	1 of 23 (4%)	0 of 23 (0%)	1.33	MW-1
1,1 Dichloroethane	5 of 23 (22%)	0 of 23 (0%)	4.43	MW-16
1,1 Dichloroethene	2 of 23 (9%)	0 of 23 (0%)	4.15	MW-16
1,1,1 Trichloroethane	10 of 23 (43%)	0 of 23 (0%)	27.0	MW-10
Tetrachloroethylene	8 of 23 (35%)	8 of 23 (35%)	32.7	MW-16
Trichloroethylene	19 of 23 (83%)	19 of 23 (83%)	2,280	OSMW-4

The results of groundwater sampling activities are summarized in Table 1, Appendix B. Groundwater sample locations and reported TCE analytical results are depicted on Figure 4, Appendix A. Copies of the analytical results and chain-of-custody documentation are provided in Appendix C.

3.3 Evaluation of TCE Results

3.3.1 TCE Concentrations

Review of the TCE plume, as depicted on Exhibit 4, indicates that the limits of the plume are generally consistent with the plume map based on the June 2009 data. The increase in TCE concentration at OSMW-7 (from 66.1 μg/L to 101 μg/L) shifts the plume slightly to the west; however, the 100 μg/L plume does not extend to the south and west beyond the limits of the study area. The groundwater results do not suggest that vapor intrusion sampling is required in any additional areas.

3.3.2 Comparison of TCE Data

The reported TCE concentrations at MW-1, MW-2, MW-15, MW-16, OSMW-3, OSMW-9, OSMW-10, and OSMW-11 exhibit a generally decreasing trend. The reported concentrations of the October 2011 sampling event at these eight wells are less than the concentrations from the previous (June 2009) sampling event and less than the maximum observed TCE concentrations at those respective locations.

The reported TCE concentrations are generally stable at MW-10 and exhibit a slightly increasing trend at MW-5, MW-12, OSMW-4, and OSMW-8. The reported concentrations of the October 2011 sampling event at these five wells are less than the concentrations from the previous (June 2009) sampling event and less than the maximum observed TCE concentrations at those respective locations. The reported TCE concentrations at MW-6 and OSMW-7 are generally stable. The reported concentrations of the October 2011 sampling event at these two wells are greater than the concentrations from the previous (June 2009) sampling event, but less than the maximum observed TCE concentrations at those respective locations.

The reported TCE concentrations at MW-3 are generally stable and at MW-9 and MW-14 exhibit an increasing trend. The reported concentrations of the October 2011 sampling event at these three wells are greater than the concentrations from the previous (June 2009) sampling event and also greater than the maximum observed TCE concentrations at those respective locations.

TCE was either not detected at MW-7, MW-13, OSMW-5, OSMW-13, and OSMW-14 or reported concentrations were less than 10 υg/L.

Except for monitoring wells MW-3, MW-9, and MW-14, conditions at the site are generally steady or declining. The lack of an ongoing release, natural biodegradation, and dispersion effects are resulting in an overall downward trend of observed TCE concentrations. Based on the observed results, TCE concentrations and the limits of the observed TCE plume are not expected to increase.

4.0 FIELD DATA QUALITY

The QAPP set forth the procedures and methods for data collection. The sampling plans defined the specific procedures and adjustments necessary to maintain data quality to support the project decision. The QAPP required both field and laboratory checks to monitor conformance to project quality limits.

4.1 Quality Control Parameters

To assess whether quality assurance objectives for this project have been achieved, the following QC parameters were considered: precision, accuracy, representativeness, comparability, completeness, and sensitivity.

4.1.1 Precision and Accuracy

As described in the QAPP, precision is evaluated using the RPD between an actual sample and a duplicate sample. Accuracy is evaluated using a percent recovery measured in spiked and unspiked samples. Accuracy is a function of the laboratory method, and parameters regarding accuracy are included in the data quality package provided by the laboratory.

Duplicate groundwater samples were collected from MW-12 and OSMW-4. For each compound, Terracon compared the concentrations detected in each sample and its corresponding duplicate sample. The absolute value RPDs for groundwater ranged from 6.7% to 16.4%, which is within the 20% limit specified in the QAPP.

One equipment blank and one trip blank were submitted to the Test America for analysis. The reported analytical results were non-detect for each blank sample.

4.1.2 Representativeness

Terracon has evaluated the representativeness of the field assessment activities to document the degree to which the sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Review of field methods and procedures indicated that sample collection, handling, and transportation were conducted in general accordance with the QAPP and the Groundwater and Soil FSPs.

Field parameters are taken with an YSI-556 multi-meter and pH, temperature, specific conductance, DO and ORP are also recorded in the field book from the YSI-556 screen. Review of analytical results indicates that the analytical data is generally uniform and consistent between sampling points and with previous sampling and analysis activities.

4.1.3 Completeness

Laboratory analysis was completed on each of the samples collected in the field and submitted for analysis. Laboratory completeness was determined to be 100%.

4.1.4 Comparability

To produce comparable data, the units specified for analytical results obtained during the field activities are consistent throughout this project and standardized analytical methods have been used for each parameter.

4.1.5 Sensitivity

The laboratory detection limits were not sufficient to report concentrations below the PRGs for several of the VOCs. Samples collected for borings MW-1, MW-5, MW-6, MW-9, MW-12, and OSMW-4 were reportedly diluted by the laboratory. Concentrations of TCE were reported in each of the diluted samples. The dilutions do not affect the ability to rely on TCE analytical results for evaluation of TCE trends at the site.

5.0 LABORATORY DATA QUALITY

The laboratory completed validation and verification of laboratory processes and data, and delivered a Level II data package to the Terracon Project Manager. The package, including laboratory written reports and documents are in compliance with the QAPP.

6.0 FINDINGS AND CONCLUSIONS

Terracon has conducted a supplemental quarterly groundwater monitoring event for this property. Terracon makes the following conclusions.

- The field assessment activities have been completed consistent with the intent and strictures of project objectives.
- The field assessment activities have been conducted consistent with the QAPP and Groundwater FSP.
- The field assessment activities have produced data of a quality sufficient to make the project decisions set forth in the QAPP.

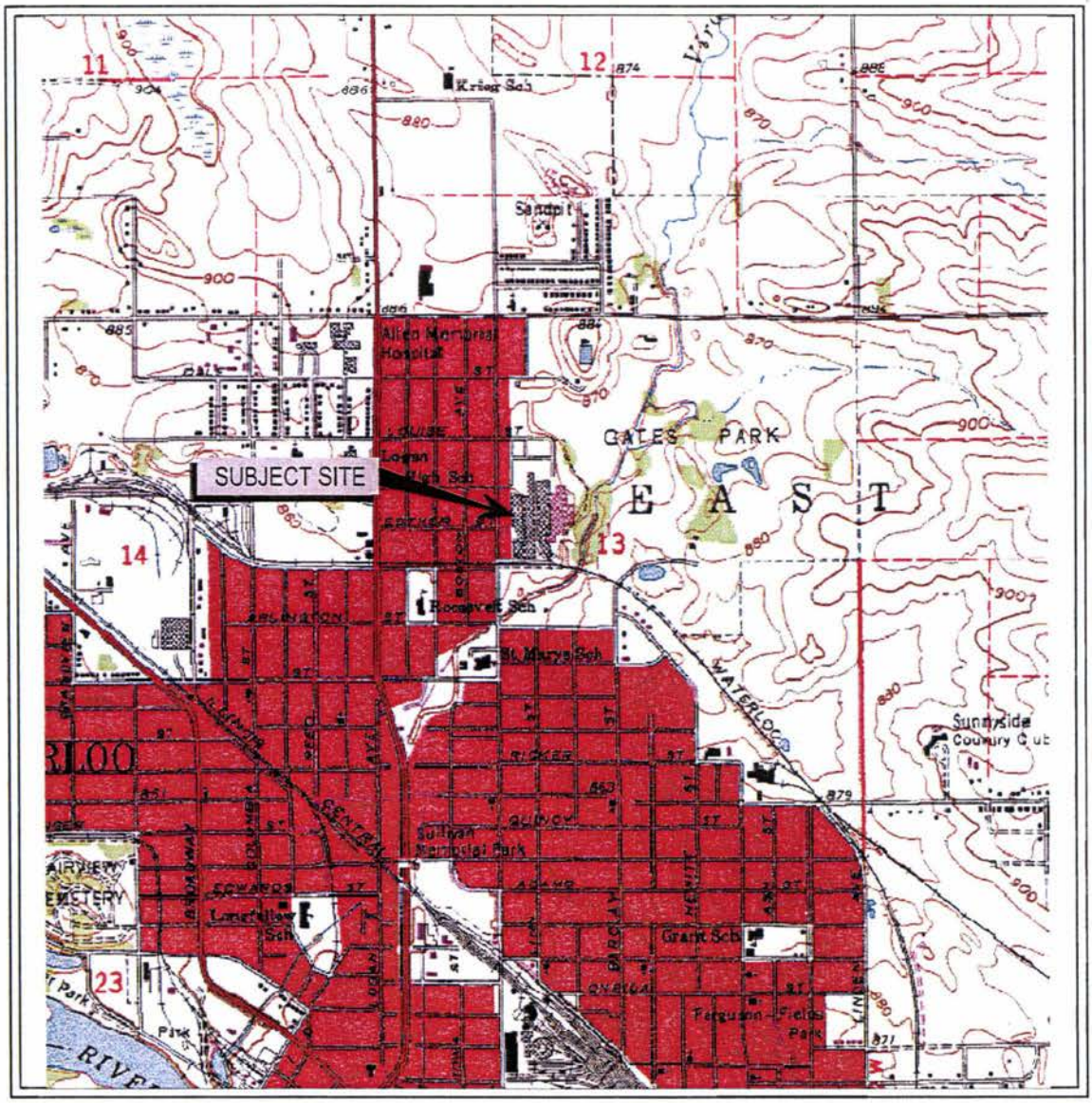
Terracon

Appendix A

Figures

Figure 1 - Topographic Vicinity Map
Figure 2 - Site Diagram
Figure 3 - Flow Diagram - Unconsolidated Aquifer
Figure 4 - TCE Concentration - Unconsolidated Aquifer

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



SCALE 1:24 000

KILOMETERS: 1 .5 0 1 2

METERS: 1000 0 1000 2000

MILES: 1 .5 0 1

FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000

CONTOUR INTERVAL FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
TOPO LINES REPRESENT 10-FOOT CONTOURS

N

WATERLOO NORTH QUADRANGLE

7.5 MINUTE SERIES (TOPOGRAPHIC)

Project Mngr: JFB	Project No. 07107020	Terracon Consulting Engineers and Scientists	TOPOGRAPHIC VICINITY MAP	FIG. No.
Drawn By: JFB	Scale: AS SHOWN		GROUNDWATER MONITORING REPORT	
Checked By: JFB	File No. 07107020-T7-FSP-FIG1		FORMER CHAMBERLAIN MANUFACTURING FACILITY	
Approved By: JFB	Date: DECEMBER 7, 2011	970 40th Avenue Bettendorf, Iowa 52722 (563) 355-3702 (563) 355-4739	550 ESTHER ST. WATERLOO, IOWA	1

LEGEND

- PROPERTY LINE
- RAILROAD
- MONITORING WELL
- RES. RESIDENTIAL
- FORMER GEOPROBE SAMPLES

NOTE: ON-SITE BUILDINGS HAVE BEEN DEMOLISHED AND ARE DEPICTED FOR REFERENCE ONLY.

N

0 500'

APPROXIMATE SCALE

Project Mngr: JFB	Project No. 07107020	Terracon Consulting Engineers and Scientists	SITE DIAGRAM
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	GROUNDWATER MONITORING REPORT
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4789	FORMER CHAMBERLAIN MANUFACTURING FACILITY
Approved By: JFB	Date: December 7, 2011		550 ESTHER STREET WATERLOO, IOWA

Ex. No. 2

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

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US EPA ARCHIVE DOCUMENT

LEGEND

- PROPERTY LINE
- RAILROAD
- MONITORING WELL
- RES. RESIDENTIAL
- FORMER GEOPROBE SAMPLES
- PROPOSED MONITORING WELL

NOTE: ON-SITE BUILDINGS HAVE BEEN DEMOLISHED AND ARE DEPICTED FOR REFERENCE ONLY.

N

0 500'

APPROXIMATE SCALE

Project Mngr: JFB	Project No. 07107020	Terracon Consulting Engineers and Scientists	FLOW DIAGRAM - UNCONSOLIDATED AQUIFER
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	GROUNDWATER MONITORING REPORT
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4789	FORMER CHAMBERLAIN MANUFACTURING FACILITY
Approved By: JFB	Date: December 7, 2011		550 ESTHER STREET WATERLOO, IOWA

Ex. No. 3

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

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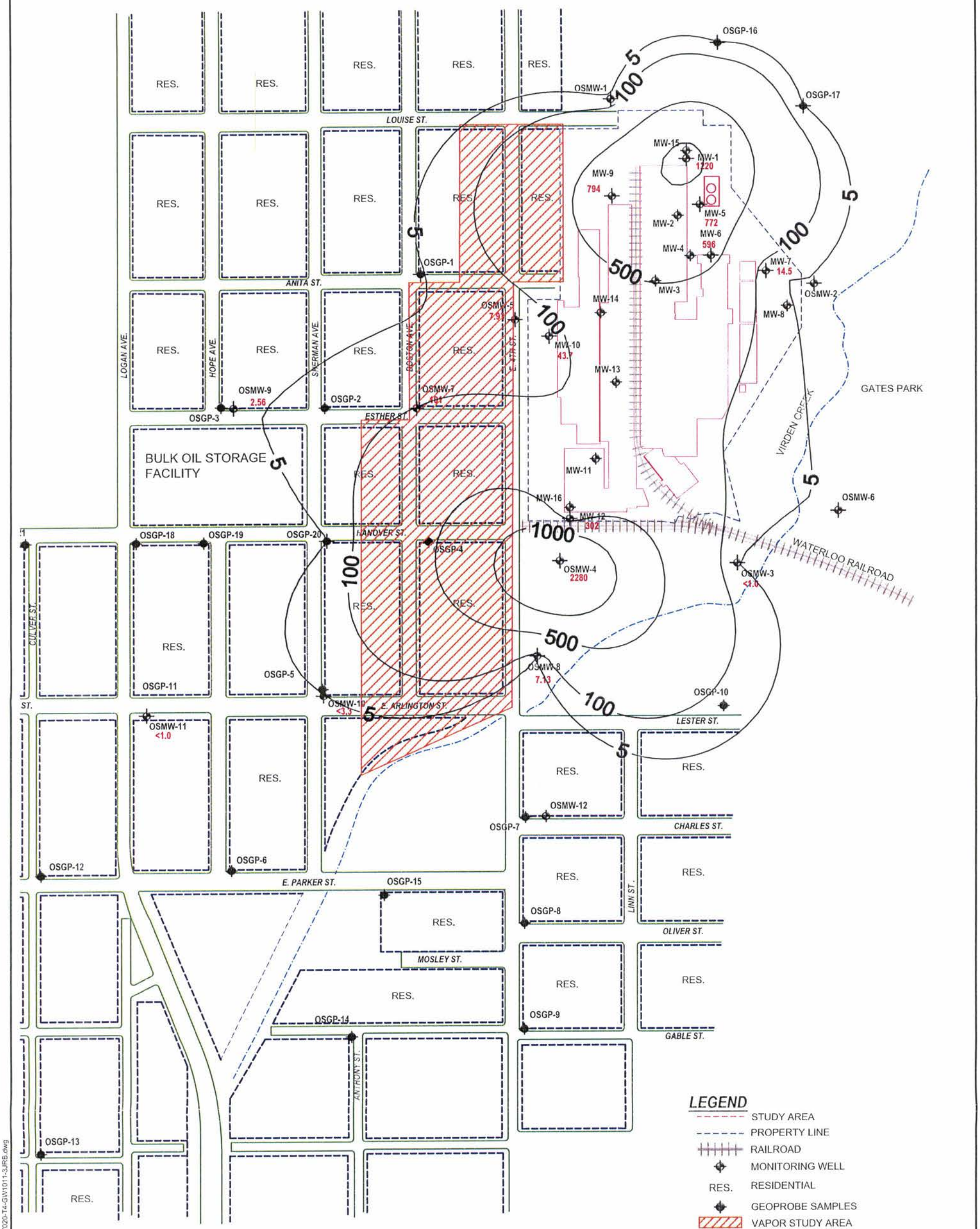

Project Mngr: JFB	Project No. 07107020	Terracon Consulting Engineers and Scientists	TCE CONCENTRATION - UNCONSOLIDATED AQUIFER
Drawn By: JFB	Scale: AS-SHOWN	870 40TH AVENUE BETTENDORF, IOWA 52722	GROUNDWATER MONITORING REPORT
Checked By: JFB	Revised By: JFB	PH. (563) 355-0702 FAX. (563) 355-4769	FORMER CHAMBERLAIN MANUFACTURING FACILITY
Approved By: JFB	Date: December 15, 2011		550 ESTHER STREET WATERLOO, IOWA

Ex. No. 4

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

N:\Projects\2010\07107020\drawings\GW Monitoring\Oct 2011\07107020-T4-GW1011-3JRB.dwg

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Appendix B

Tables

Table Notes
Table 1 - Supplemental Analytical Results

Table Notes
Groundwater Monitoring Report
October 2011 Sampling Event
Former Industrial Property
505 Esther Street
Waterloo, Iowa

PRGs from USEPA Region 9 PRG Tables, October 1, 2002.

mg/kg = milligrams per kilogram, generally equivalent to ppm

µg/kg = micrograms per kilogram, generally equivalent to ppb

mg/L = milligrams per liter, generally equivalent to parts per million (ppm)

µg/L = micrograms per liter generally equivalent to ppb

deg C. = degrees Centigrade

mV = milli Volts

mS/cm = micro mhos per centimeter

Exceedances of applicable PRGs are highlighted in **bold**

October 2007 DO results converted from percent to mg/L.

Table 1
Groundwater Monitoring Report
October 2011 Sampling Event
Former Industrial Property
505 Esther Street
Waterloo, Iowa

Client Sample ID			MW-1	MW-2	MW-3	MW-5	MW-6	MW-7	MW-9	MW-10	MW-12	MW-13	MW-14	MW-15	MW-16	OSMW-3	OSMW-4	OSMW-5	OSMW-7
Lab Sample ID			CUJ1051-05	CUJ1223-05	CUJ1223-06	CUJ1223-04	CUJ1223-08	CUJ1223-07	CUJ1223-03	CUJ1143-05	CUJ1143-11	CUJ1223-01	CUJ1223-02	CUJ1051-06	CUJ1143-12	CUJ1143-03	CUJ1143-01	CUJ1051-01	CUJ1051-02
Date Sampled			10/17/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/18/2011	10/18/2011	10/19/2011	10/19/2011	10/17/2011	10/18/2011	10/18/2011	10/18/2011	10/17/2011	10/17/2011
CAS No	Parameter	Units																	
LABORATORY MNA PARAMETERS																			
FIELD MNA PARAMETERS																			
	Temperature	deg C.	12.79	18.07	17.33	12.52	15.32	12.84	12.77	13.27	13.13	18.53	17.6	11.68	11.97	12.26	13.26	14.44	11.96
	Dissolved Oxygen	mg/L	2.96	4.17	0.35	2.31	5.89	5.03	7.6	5.55	6.84	5.21	0.5	3	3.1	0.28	291	6	2.83
	ORP	mV	269.1	302.5	308.1	312.8	314.4	313.9	308.5	219.6	303.9	300.3	301	251.6	290.7	122.9	4.79	266.1	276
	pH		6.6	7.31	6.87	6.53	6.36	6.61	6.93	6.52	6.4	6.95	6.67	7.34	7.34	6.75	7.47	7.11	7.16
	Specific Conductance	mS/cm	0.249	0.301	0.575	0.411	0.391	0.335	0.591	0.524	0.47	0.406	0.458	0.416	0.506	0.487	0.648	1.111	0.487
VOLATILE ORGANIC COMPOUNDS																			
630-20-6	1,1,1,2-Tetrachloroethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
71-55-6	1,1,1-Trichloroethane	µg/L	<1.00	<1.00	20.1	<10.0	9.2	2.74	<10.0	27	6.25	1.72	2.2	<1.00	16.4	<1.00	<10.0	5.93	17
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
79-00-5	1,1,2-Trichloroethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
75-34-3	1,1-Dichloroethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	1.3	<10.0	1.75	<5.00	<1.00	<1.00	<1.00	4.43	<1.00	<10.0	1.03	1.15
75-35-4	1,1-Dichloroethene	µg/L	<2.00	<2.00	<2.00	<20.0	<10.0	<2.00	<20.0	<2.00	<10.0	<2.00	<2.00	<2.00	4.15	<2.00	<20.0	<2.00	2.97
563-58-6	1,1-Dichloropropene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
87-61-6	1,2,3-Trichlorobenzene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
96-18-4	1,2,3-Trichloropropane	µg/L	<1.00	<4.00	<4.00	<40.0	<20.0	<4.00	<40.0	<4.00	<5.00	<4.00	<4.00	<1.00	<1.00	<4.00	<40.0	<1.00	<1.00
120-82-1	1,2,4-Trichlorobenzene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
95-63-6	1,2,4-Trimethylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
96-12-8	1,2-Dibromo-3-chloropropane	µg/L	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<100	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0
106-93-4	1,2-Dibromoethane (EDB)	µg/L	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<100	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0
202-425-9	1,2-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
107-06-2	1,2-Dichloroethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
78-87-5	1,2-Dichloropropane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
108-67-8	1,3,5-Trimethylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
541-73-1	1,3-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
142-28-9	1,3-Dichloropropane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
106-46-7	1,4-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
594-20-7	2,2-Dichloropropane	µg/L	<4.00	<4.00	<4.00	<40.0	<20.0	<4.00	<40.0	<4.00	<20.0	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<4.00	<4.00
95-49-8	2-Chlorotoluene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
106-43-4	4-Chlorotoluene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
67-64-1	Acetone	µg/L	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<100	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0
9003-54-7	Acrylonitrile	µg/L	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<100	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0
71-43-2	Benzene	µg/L	<0.500	<0.500	<0.500	<5.00	<2.50	<0.500	<5.00	<0.500	<2.50	<0.500	<0.500	<0.500	<0.500	<0.500	<5.00	<0.500	<0.500
108-86-1	Bromobenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
74-97-5	Bromochloromethane	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
75-27-4	Bromodichloromethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00

Table 1
Groundwater Monitoring Report
October 2011 Sampling Event
Former Industrial Property
505 Esther Street
Waterloo, Iowa

Client Sample ID			MW-1	MW-2	MW-3	MW-5	MW-6	MW-7	MW-9	MW-10	MW-12	MW-13	MW-14	MW-15	MW-16	OSMW-3	OSMW-4	OSMW-5	OSMW-7
Lab Sample ID			CUJ1051-05	CUJ1223-05	CUJ1223-06	CUJ1223-04	CUJ1223-08	CUJ1223-07	CUJ1223-03	CUJ1143-05	CUJ1143-11	CUJ1223-01	CUJ1223-02	CUJ1051-06	CUJ1143-12	CUJ1143-03	CUJ1143-01	CUJ1051-01	CUJ1051-02
Date Sampled			10/17/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/19/2011	10/18/2011	10/18/2011	10/19/2011	10/19/2011	10/17/2011	10/18/2011	10/18/2011	10/18/2011	10/17/2011	10/17/2011
CAS No	Parameter	Units																	
75-25-2	Bromoform	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
74-83-9	Bromomethane	µg/L	4.49	<4.00	<4.00	<40.0	<20.0	<4.00	<40.0	<4.00	<50.0	<4.00	<4.00	<4.00	<10.0	<4.00	<40.0	<4.00	<4.00
75-15-0	Carbon disulfide	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
56-23-5	Carbon tetrachloride	µg/L	<2.00	<2.00	<2.00	<20.0	<10.0	<2.00	<20.0	<2.00	<10.0	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<2.00	<2.00
108-90-7	Chlorobenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
124-48-1	Chlorodibromomethane	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
75-00-3	Chloroethane	µg/L	<4.00	<4.00	<4.00	<40.0	<20.0	<4.00	<40.0	<4.00	<20.0	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<4.00	<4.00
67-66-3	Chloroform	µg/L	<1.00	<1.00	**1.33**	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
74-87-3	Chloromethane	µg/L	<30.0	<3.00	<3.00	<30.0	<15.0	<3.00	<30.0	<3.00	<15.0	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<3.00	<3.00
156-59-2	cis-1,2-Dichloroethene	µg/L	**438**	<1.00	<1.00	**194**	**588**	16.3	**335**	<1.00	<5.00	1.96	4.03	<1.00	25.4	<1.00	30	1.51	24.7
10061-01-5	cis-1,3-Dichloropropene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
74-95-3	Dibromomethane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
75-71-8	Dichlorodifluoromethane	µg/L	<3.00	<3.00	<3.00	<30.0	<15.0	<3.00	<30.0	<3.00	<15.0	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<3.00	<3.00
100-41-4	Ethylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
87-68-3	Hexachlorobutadiene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
110-54-3	Hexane	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
98-82-8	Isopropylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
78-93-3	MEK	µg/L	<10.0	<10.0	<10.0	<100	<50.0	<10.0	<100	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0
75-09-2	Methylene chloride	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
1634-04-4	MTBE	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
91-20-3	Napthalene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
104-51-8	n-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
103-65-1	n-Propylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
99-87-6	p-Isopropyltoluene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
135-9-88	sec-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
100-42-5	Styrene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
98-06-6	tert-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
127-18-4	Tetrachloroethene	µg/L	**1.24**	<1.00	**1.03**	<10.0	<5.00	**1.71**	<10.0	**7.4**	<5.00	<1.00	**2.13**	<1.00	**32.7**	<1.00	<10.0	**3.38**	**3.51**
108-88-3	Toluene	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
156-60-5	trans-1,2-Dichloroethene	µg/L	1.33	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
10061-02-6	trans-1,3-Dichloropropene	µg/L	<5.00	<5.00	<5.00	<50.0	<25.0	<5.00	<50.0	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<5.00	<5.00
79-01-6	Trichloroethylene	µg/L	**1220**	**2.86**	**41.6**	**772**	**596**	**14.5**	**794**	**43.7**	**302**	**7.87**	**124**	<1.00	**37.1**	<1.00	**2280**	**7.93**	**101**
75-69-4	Trichlorofluoromethane	µg/L	<4.00	<4.00	<4.00	<40.0	<20.0	<4.00	<40.0	<4.00	<20.0	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<4.00	<4.00
75-01-4	Vinyl Chloride	µg/L	<1.00	<1.00	<1.00	<10.0	<5.00	<1.00	<10.0	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00
1330-20-7	Xylenes, Total	µg/L	<3.00	<3.00	<3.00	<30.0	<15.0	<3.00	<30.0	<3.00	<15.0	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<3.00	<3.00

Table 1
Groundwater Monitoring Report
October 2011 Sampling Event
Former Industrial Property
505 Esther Street
Waterloo, Iowa

Client Sample ID			OSMW-8	OSMW-9	OSMW-10	OSMW-11	OSMW-13	OSMW-14	Dup-1	Dup-2	Equipment Blank	Trip Blank	Trip Blank	Trip Blank	Frequency of Detection	Maximum Detected Concentration	PRG	Maximum Exceeds?
Lab Sample ID			CUJ1143-02	CUJ1051-03	CUJ1143-09	CUJ1143-08	CUJ1143-07	CUJ1143-06	CUJ1143-04	CUJ1143-13	CUJ1051-04	CUJ1051-07	CUJ1143-10	CUJ1223-09				
Date Sampled			10/18/2011	10/17/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/17/2011	10/17/2011	10/18/2011	10/19/2011			Tap Water	
CAS No	Parameter	Units																
LABORATORY MNA PARAMETERS																		
FIELD MNA PARAMETERS																		
	Temperature	deg C.	14.46	14.7	13.98	15.99	15.36	15.3							16 of 16 (100%)	18.53	>20	
	Dissolved Oxygen	mg/L	3.23	4.22	6.99	2.39	1.75	0.45							16 of 16 (100%)	291.00	<0.5	
	ORP	mV	288	298.9	281.7	270.2	266	240.7							16 of 16 (100%)	314.40	>100	
	pH		6.8	7.37	7.59	7.74	7.6	7.03							16 of 16 (100%)	7.47	5<pH<9	
	Specific Conductance	mS/cm	0.301	0.623	0.461	0.625	0.667	0.636							16 of 16 (100%)	1.11		
VOLATILE ORGANIC COMPOUNDS																		
630-20-6	1,1,1,2-Tetrachloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.43	Not Detected
71-55-6	1,1,1-Trichloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	11.4	6.68	<1.00	<1.00	<1.00	<1.00	10 of 23 (43%)	27.00	3171.72	NO
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.06	Not Detected
79-00-5	1,1,2-Trichloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.20	Not Detected
75-34-3	1,1-Dichloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	2.74	<1.00	<1.00	<1.00	<1.00	<1.00	5 of 23 (22%)	4.43	811.11	NO
75-35-4	1,1-Dichloroethene	µg/L	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	2.95	<2.00	<2.00	<2.00	<2.00	<2.00	2 of 23 (9%)	4.15	338.84	NO
563-58-6	1,1-Dichloropropene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	18.25	Not Detected
87-61-6	1,2,3-Trichlorobenzene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	3.36	Not Detected
96-18-4	1,2,3-Trichloropropane	µg/L	<4.00	<1.00	<1.00	<1.00	<1.00	<1.00	<4.00	<1.00	<1.00	<1.00	<1.00	<4.00	0 of 23 (0%)	Not Detected	0.01	Not Detected
120-82-1	1,2,4-Trichlorobenzene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	7.16	Not Detected
95-63-6	1,2,4-Trimethylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	12.33	Not Detected
96-12-8	1,2-Dibromo-3-chloropropane	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	0 of 23 (0%)	Not Detected	0.05	Not Detected
106-93-4	1,2-Dibromoethane (EDB)	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	0 of 23 (0%)	Not Detected	0.01	Not Detected
202-425-9	1,2-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	1825.00	Not Detected
107-06-2	1,2-Dichloroethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.12	Not Detected
78-87-5	1,2-Dichloropropane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.16	Not Detected
108-67-8	1,3,5-Trimethylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	12.33	Not Detected
541-73-1	1,3-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	182.50	Not Detected
142-28-9	1,3-Dichloropropane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	121.67	Not Detected
106-46-7	1,4-Dichlorobenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.50	Not Detected
594-20-7	2,2-Dichloropropane	µg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	0 of 23 (0%)	Not Detected	0.10	Not Detected
95-49-8	2-Chlorotoluene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	121.67	Not Detected
106-43-4	4-Chlorotoluene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	365.00	Not Detected
67-64-1	Acetone	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	0 of 23 (0%)	Not Detected	5475.00	Not Detected
9003-54-7	Acrylonitrile	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	0 of 23 (0%)	Not Detected	36.50	Not Detected
71-43-2	Benzene	µg/L	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0 of 23 (0%)	Not Detected	0.35	Not Detected
108-86-1	Bromobenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	20.30	Not Detected
74-97-5	Bromochloromethane	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	60.83	Not Detected
75-27-4	Bromodichloromethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.18	Not Detected

Table 1
Groundwater Monitoring Report
October 2011 Sampling Event
Former Industrial Property
505 Esther Street
Waterloo, Iowa

Client Sample ID			OSMW-8	OSMW-9	OSMW-10	OSMW-11	OSMW-13	OSMW-14	Dup-1	Dup-2	Equipment Blank	Trip Blank	Trip Blank	Trip Blank	Frequency of Detection	Maximum Detected Concentration	PRG	Maximum Exceeds?
Lab Sample ID			CUJ1143-02	CUJ1051-03	CUJ1143-09	CUJ1143-08	CUJ1143-07	CUJ1143-06	CUJ1143-04	CUJ1143-13	CUJ1051-04	CUJ1051-07	CUJ1143-10	CUJ1223-09				
Date Sampled			10/18/2011	10/17/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/18/2011	10/17/2011	10/17/2011	10/18/2011	10/19/2011			Tap Water	
CAS No	Parameter	Units																
75-25-2	Bromoform	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	8.51	Not Detected
74-83-9	Bromomethane	µg/L	<4.00	<4.00	<10.0	<10.0	<10.0	<10.0	<4.00	<4.00	<4.00	<4.00	<10.0	<4.00	1 of 23 (4%)	4.49	8.66	NO
75-15-0	Carbon disulfide	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	1042.86	Not Detected
56-23-5	Carbon tetrachloride	µg/L	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0 of 23 (0%)	Not Detected	0.17	Not Detected
108-90-7	Chlorobenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	106.07	Not Detected
124-48-1	Chlorodibromomethane	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	0.13	Not Detected
75-00-3	Chloroethane	µg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	0 of 23 (0%)	Not Detected	4.64	Not Detected
67-66-3	Chloroform	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.32**	<1.00	<1.00	<1.00	<1.00	<1.00	1 of 23 (4%)	1.33	0.17	**YES**
74-87-3	Chloromethane	µg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	0 of 23 (0%)	Not Detected	158.17	Not Detected
156-59-2	cis-1,2-Dichloroethene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	33.2	4.41	<1.00	<1.00	<1.00	<1.00	11 of 23 (48%)	588.00	60.83	**YES**
10061-01-5	cis-1,3-Dichloropropene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	3649.99	Not Detected
74-95-3	Dibromomethane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	60.83	Not Detected
75-71-8	Dichlorodifluoromethane	µg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	0 of 23 (0%)	Not Detected	394.59	Not Detected
100-41-4	Ethylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	1339.87	Not Detected
87-68-3	Hexachlorobutadiene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	0.86	Not Detected
110-54-3	Hexane	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	416.71	Not Detected
98-82-8	Isopropylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	658.20	Not Detected
78-93-3	MEK	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	0 of 23 (0%)	Not Detected	6968.18	Not Detected
75-09-2	Methylene chloride	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	4.28	Not Detected
1634-04-4	MTBE	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	11.00	Not Detected
91-20-3	Napthalene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	6.20	Not Detected
104-51-8	n-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	243.33	Not Detected
103-65-1	n-Propylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	243.33	Not Detected
99-87-6	p-Isopropyltoluene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	3.65	Not Detected
135-9-88	sec-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	243.33	Not Detected
100-42-5	Styrene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	1641.09	Not Detected
98-06-6	tert-Butylbenzene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	243.33	Not Detected
127-18-4	Tetrachloroethene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**8.88**	**1.65**	<1.00	<1.00	<1.00	<1.00	8 of 23 (35%)	32.70	0.10	**YES**
108-88-3	Toluene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	723.42	Not Detected
156-60-5	trans-1,2-Dichloroethene	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1 of 23 (4%)	1.33	121.67	NO
10061-02-6	trans-1,3-Dichloropropene	µg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0 of 23 (0%)	Not Detected	3649.99	Not Detected
79-01-6	Trichloroethylene	µg/L	**7.13**	**2.56**	**3.26**	<1.00	**9.6**	<1.00	**2570**	**356**	<1.00	<1.00	<1.00	<1.00	19 of 23 (83%)	2280.00	0.03	**YES**
75-69-4	Trichlorofluoromethane	µg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	0 of 23 (0%)	Not Detected	1288.24	Not Detected
75-01-4	Vinyl Chloride	µg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0 of 23 (0%)	Not Detected	0.02	Not Detected
1330-20-7	Xylenes, Total	µg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	0 of 23 (0%)	Not Detected	205.73	Not Detected

Terracon

Appendix C

Analytical Results and Chains of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

October 26, 2011

Client:
TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722

Attn: John Brimeyer

Work Order: CUJ1051
Project Name: Chamberlain - Waterloo, IA
Project Number: 07107020

Date Received: 10/17/11

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
OSMW-5	CUJ1051-01	10/17/11 09:45
OSMW-7	CUJ1051-02	10/17/11 10:50
OSMW-9	CUJ1051-03	10/17/11 11:39
Equipment Blank	CUJ1051-04	10/17/11 13:55
MW-1	CUJ1051-05	10/17/11 13:58
MW-15	CUJ1051-06	10/17/11 16:05
Trip Blank	CUJ1051-07	10/17/11

Samples were received into laboratory at a temperature of 3.30 °C.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:

Angela Muehling

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Sample ID: CUJ1051-01 (OSMW-5 - Ground Water) — **Sampled: 10/17/11 09:45** — **Recvd: 10/17/11 16:57**

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/22/11 22:00	FMK	11J1260	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1-Dichloroethane	**1.03**		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
cis-1,2-Dichloroethene	**1.51**		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-01 (OSMW-5 - Ground Water) - cont.					**Sampled: 10/17/11 09:45**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Tetrachloroethene	**3.38**		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1,1-Trichloroethane	**5.93**		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Trichloroethene	**7.93**		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/22/11 22:00	FMK	11J1260	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*104 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*96 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW
Sample ID: CUJ1051-02 (OSMW-7 - Ground Water)					**Sampled: 10/17/11 10:50**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/22/11 22:22	FMK	11J1260	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Sample ID: CUJ1051-02 (OSMW-7 - Ground Water) - cont. **Sampled: 10/17/11 10:50** **Recvd: 10/17/11 16:57**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1-Dichloroethane	**1.15**		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1-Dichloroethene	**2.97**		ug/L	2.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
cis-1,2-Dichloroethene	**24.7**		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Tetrachloroethene	**3.51**		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1,1-Trichloroethane	**17.0**		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Trichloroethene	**101**		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-02 (OSMW-7 - Ground Water) - cont.					**Sampled: 10/17/11 10:50**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/22/11 22:22	FMK	11J1260	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*96 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW
Sample ID: CUJ1051-03 (OSMW-9 - Ground Water)					**Sampled: 10/17/11 11:39**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/20/11 05:39	FMK	11J1065	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-03 (OSMW-9 - Ground Water) - cont.					**Sampled: 10/17/11 11:39**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Trichloroethene	**2.56**		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/20/11 05:39	FMK	11J1065	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*94 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*101 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-04 (Equipment Blank - Ground Water)					**Sampled: 10/17/11 13:55**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Bromoform	<5.00	C	ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Bromomethane	<4.00	CIN, ICV2	ug/L	4.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/20/11 06:01	FMK	11J1065	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Carbon Tetrachloride	<2.00	C	ug/L	2.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Chloroethane	<4.00	L5	ug/L	4.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Chloromethane	<3.00	C, CIN, ICV2, L	ug/L	3.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0	L5	ug/L	10.0	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2-Dibromoethane (EDB)	<10.0	L5	ug/L	10.0	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Dichlorodifluoromethane	<3.00	L5	ug/L	3.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,3-Dichloropropane	<1.00	L5	ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
2,2-Dichloropropane	<4.00	L5	ug/L	4.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
trans-1,3-Dichloropropene	<5.00	L5	ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-04 (Equipment Blank - Ground Water) - cont.					**Sampled: 10/17/11 13:55**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Methylene Chloride	<5.00	L5	ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00	L5	ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1,1-Trichloroethane	<1.00	C9	ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Vinyl chloride	<1.00	C	ug/L	1.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/20/11 06:01	FMK	11J1065	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*96 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*103 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW
Sample ID: CUJ1051-05 (MW-1 - Ground Water)					**Sampled: 10/17/11 13:58**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Bromoform	<5.00	C	ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Bromomethane	**4.49**	CIN, ICV2	ug/L	4.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/20/11 06:22	FMK	11J1065	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Carbon Tetrachloride	<2.00	C	ug/L	2.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-05 (MW-1 - Ground Water) - cont.					**Sampled: 10/17/11 13:58**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Chloroethane	<4.00	L5	ug/L	4.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Chloromethane	<30.0		ug/L	30.0	10	10/23/11 04:50	FMK	11J1260	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0	L5	ug/L	10.0	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2-Dibromoethane (EDB)	<10.0	L5	ug/L	10.0	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Dichlorodifluoromethane	<3.00	L5	ug/L	3.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
cis-1,2-Dichloroethene	**438**		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
trans-1,2-Dichloroethene	**1.33**		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,3-Dichloropropane	<1.00	L5	ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
2,2-Dichloropropane	<4.00	L5	ug/L	4.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
trans-1,3-Dichloropropene	<5.00	L5	ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Methylene Chloride	<5.00	L5	ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00	L5	ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Tetrachloroethene	**1.24**		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1,1-Trichloroethane	<1.00	C9	ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Trichloroethene	**1220**		ug/L	10.0	10	10/23/11 04:50	FMK	11J1260	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-05 (MW-1 - Ground Water) - cont.					**Sampled: 10/17/11 13:58**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Vinyl chloride	<1.00	C	ug/L	1.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/20/11 06:22	FMK	11J1065	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*102 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW
Sample ID: CUJ1051-06 (MW-15 - Ground Water)					**Sampled: 10/17/11 16:05**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/22/11 22:43	FMK	11J1260	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-06 (MW-15 - Ground Water) - cont.					**Sampled: 10/17/11 16:05**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/22/11 22:43	FMK	11J1260	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*102 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*101 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-07 (Trip Blank - Water)					**Sampled: 10/17/11**		**Recvd: 10/17/11 16:57**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Bromomethane	<4.00	CIN, ICV	ug/L	4.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/19/11 09:04	FMK	11J0981	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Chloromethane	<3.00	C, CIN, ICV	ug/L	3.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1051-07 (Trip Blank - Water) - cont.					**Sampled: 10/17/11**			**Recvd: 10/17/11 16:57**	
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/19/11 09:04	FMK	11J0981	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*106 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/20/11 20:18	ztb	11J1082	SW

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J0981			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11J0981			ug/L	N/A	10.0	<10.0							
Benzene	11J0981			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J0981			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J0981			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J0981			ug/L	N/A	1.00	<1.00							
Bromoform	11J0981			ug/L	N/A	5.00	<5.00							
Bromomethane	11J0981			ug/L	N/A	4.00	<4.00							CIN,ICV
2-Butanone (MEK)	11J0981			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J0981			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J0981			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J0981			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J0981			ug/L	N/A	5.00	<5.00							
Chloroethane	11J0981			ug/L	N/A	4.00	<4.00							
Chloroform	11J0981			ug/L	N/A	1.00	<1.00							
Chloromethane	11J0981			ug/L	N/A	3.00	<3.00							C,CIN,ICV
2-Chlorotoluene	11J0981			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J0981			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J0981			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11J0981			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J0981			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J0981			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J0981			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J0981			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11J0981			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J0981			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J0981			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J0981			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J0981			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J0981			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J0981			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J0981			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J0981			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J0981			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J0981			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J0981			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J0981			ug/L	N/A	5.00	<5.00							
Hexane	11J0981			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J0981			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J0981			ug/L	N/A	5.00	<5.00							

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J0981			ug/L	N/A	1.00	<1.00							
Naphthalene	11J0981			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
Styrene	11J0981			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J0981			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J0981			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J0981			ug/L	N/A	1.00	<1.00							
Toluene	11J0981			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J0981			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J0981			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J0981			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J0981			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J0981			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J0981			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J0981			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J0981			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J0981			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J0981			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J0981*			ug/L					*98*		*75-120*			
Surrogate: Toluene-d8	*11J0981*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J0981*			ug/L					*105*		*75-110*			
Acetone	11J1065			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11J1065			ug/L	N/A	10.0	<10.0							
Benzene	11J1065			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1065			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J1065			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1065			ug/L	N/A	1.00	<1.00							
Bromoform	11J1065			ug/L	N/A	5.00	<5.00							C
Bromomethane	11J1065			ug/L	N/A	4.00	<4.00							CIN,ICV2
2-Butanone (MEK)	11J1065			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1065			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1065			ug/L	N/A	2.00	<2.00							C
Chlorobenzene	11J1065			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1065			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1065			ug/L	N/A	4.00	<4.00							L5
Chloroform	11J1065			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1065			ug/L	N/A	3.00	<3.00							C,CIN,ICV2,L
2-Chlorotoluene	11J1065			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1065			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1065			ug/L	N/A	10.0	<10.0							L5

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704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1065			ug/L	N/A	10.0	<10.0							L5
Dibromomethane	11J1065			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1065			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1065			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1065			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11J1065			ug/L	N/A	3.00	<3.00							L5
1,1-Dichloroethane	11J1065			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1065			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1065			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1065			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1065			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1065			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1065			ug/L	N/A	1.00	<1.00							L5
2,2-Dichloropropane	11J1065			ug/L	N/A	4.00	<4.00							L5
1,1-Dichloropropene	11J1065			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1065			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1065			ug/L	N/A	5.00	<5.00							L5
Ethylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1065			ug/L	N/A	5.00	<5.00							
Hexane	11J1065			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1065			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J1065			ug/L	N/A	5.00	<5.00							L5
Methyl tert-Butyl Ether	11J1065			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1065			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
Styrene	11J1065			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1065			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1065			ug/L	N/A	1.00	<1.00							L5
Tetrachloroethene	11J1065			ug/L	N/A	1.00	<1.00							
Toluene	11J1065			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1065			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1065			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1065			ug/L	N/A	1.00	<1.00							C9
1,1,2-Trichloroethane	11J1065			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1065			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1065			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1065			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1065			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1065			ug/L	N/A	1.00	<1.00							C
Xylenes, total	11J1065			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1065*			ug/L					*89*		*75-120*			
Surrogate: Toluene-d8	*11J1065*			ug/L					*96*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1065*			ug/L					*102*		*75-110*			

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1260			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11J1260			ug/L	N/A	10.0	<10.0							
Benzene	11J1260			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1260			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J1260			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1260			ug/L	N/A	1.00	<1.00							
Bromoform	11J1260			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1260			ug/L	N/A	4.00	<4.00							
2-Butanone (MEK)	11J1260			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1260			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1260			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1260			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1260			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1260			ug/L	N/A	4.00	<4.00							
Chloroform	11J1260			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1260			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1260			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1260			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1260			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11J1260			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1260			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1260			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1260			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1260			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11J1260			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1260			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1260			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1260			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1260			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1260			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1260			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1260			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1260			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1260			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1260			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1260			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1260			ug/L	N/A	5.00	<5.00							
Hexane	11J1260			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1260			ug/L	N/A	1.00	<1.00							

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methylene Chloride	11J1260			ug/L	N/A	5.00	<5.00							
Methyl tert-Butyl Ether	11J1260			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1260			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
Styrene	11J1260			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1260			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1260			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1260			ug/L	N/A	1.00	<1.00							
Toluene	11J1260			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1260			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1260			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1260			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1260			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1260			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1260			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1260			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1260			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1260			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1260			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1260*			ug/L					*101*		*75-120*			
Surrogate: Toluene-d8	*11J1260*			ug/L					*95*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1260*			ug/L					*98*		*75-110*			

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J0981		20.0	ug/L	N/A	N/A	23.5		117		60-150			
Acrylonitrile	11J0981		20.0	ug/L	N/A	N/A	18.0		90		50-145			
Benzene	11J0981		20.0	ug/L	N/A	N/A	19.1		95		70-130			
Bromobenzene	11J0981		20.0	ug/L	N/A	N/A	20.5		102		75-130			
Bromochloromethane	11J0981		20.0	ug/L	N/A	N/A	19.9		100		65-145			
Bromodichloromethane	11J0981		20.0	ug/L	N/A	N/A	19.8		99		60-130			
Bromoform	11J0981		20.0	ug/L	N/A	N/A	19.6		98		30-125			
Bromomethane	11J0981		20.0	ug/L	N/A	N/A	23.1		116		35-130			CIN,ICV
2-Butanone (MEK)	11J0981		20.0	ug/L	N/A	N/A	18.0		90		55-140			
n-Butylbenzene	11J0981		20.0	ug/L	N/A	N/A	19.3		97		55-135			
sec-Butylbenzene	11J0981		20.0	ug/L	N/A	N/A	19.6		98		65-135			
tert-Butylbenzene	11J0981		20.0	ug/L	N/A	N/A	20.0		100		60-135			
Carbon disulfide	11J0981		20.0	ug/L	N/A	N/A	18.7		94		40-130			
Carbon Tetrachloride	11J0981		20.0	ug/L	N/A	N/A	21.4		107		55-130			
Chlorobenzene	11J0981		20.0	ug/L	N/A	N/A	19.2		96		75-125			
Chlorodibromomethane	11J0981		20.0	ug/L	N/A	N/A	21.1		106		45-125			
Chloroethane	11J0981		20.0	ug/L	N/A	N/A	17.2		86		55-135			
Chloroform	11J0981		20.0	ug/L	N/A	N/A	19.5		97		70-125			
Chloromethane	11J0981		20.0	ug/L	N/A	N/A	24.1		121		30-125			C,CIN,ICV
2-Chlorotoluene	11J0981		20.0	ug/L	N/A	N/A	20.1		100		75-135			
4-Chlorotoluene	11J0981		20.0	ug/L	N/A	N/A	19.9		100		70-140			
1,2-Dibromo-3-chloropropane	11J0981		20.0	ug/L	N/A	N/A	19.6		98		35-130			
1,2-Dibromoethane (EDB)	11J0981		20.0	ug/L	N/A	N/A	19.8		99		70-135			
Dibromomethane	11J0981		20.0	ug/L	N/A	N/A	20.4		102		75-130			
1,2-Dichlorobenzene	11J0981		20.0	ug/L	N/A	N/A	19.2		96		65-135			
1,3-Dichlorobenzene	11J0981		20.0	ug/L	N/A	N/A	19.3		96		70-130			
1,4-Dichlorobenzene	11J0981		20.0	ug/L	N/A	N/A	19.4		97		60-140			
Dichlorodifluoromethane	11J0981		20.0	ug/L	N/A	N/A	11.0		55		35-130			
1,1-Dichloroethane	11J0981		20.0	ug/L	N/A	N/A	18.8		94		60-130			
1,2-Dichloroethane	11J0981		20.0	ug/L	N/A	N/A	20.1		101		65-140			
1,1-Dichloroethene	11J0981		20.0	ug/L	N/A	N/A	19.6		98		60-135			
cis-1,2-Dichloroethene	11J0981		20.0	ug/L	N/A	N/A	19.0		95		70-135			
trans-1,2-Dichloroethene	11J0981		20.0	ug/L	N/A	N/A	19.2		96		60-145			
1,2-Dichloropropane	11J0981		20.0	ug/L	N/A	N/A	18.0		90		65-130			
1,3-Dichloropropane	11J0981		20.0	ug/L	N/A	N/A	19.6		98		75-125			
2,2-Dichloropropane	11J0981		20.0	ug/L	N/A	N/A	18.8		94		25-120			
1,1-Dichloropropene	11J0981		20.0	ug/L	N/A	N/A	19.3		96		60-140			
cis-1,3-Dichloropropene	11J0981		20.0	ug/L	N/A	N/A	19.7		98		30-120			
trans-1,3-Dichloropropene	11J0981		20.0	ug/L	N/A	N/A	18.3		92		35-120			
Ethylbenzene	11J0981		20.0	ug/L	N/A	N/A	19.2		96		70-130			
Hexachlorobutadiene	11J0981		20.0	ug/L	N/A	N/A	20.2		101		60-135			
Hexane	11J0981		20.0	ug/L	N/A	N/A	18.9		95		40-135			
Isopropylbenzene	11J0981		20.0	ug/L	N/A	N/A	18.4		92		70-125			
p-Isopropyltoluene	11J0981		20.0	ug/L	N/A	N/A	19.4		97		60-140			
Methylene Chloride	11J0981		20.0	ug/L	N/A	N/A	20.6		103		55-145			

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J0981		20.0	ug/L	N/A	N/A	20.5		102		50-135			
Naphthalene	11J0981		20.0	ug/L	N/A	N/A	17.8		89		40-135			
n-Propylbenzene	11J0981		20.0	ug/L	N/A	N/A	19.3		97		70-135			
Styrene	11J0981		20.0	ug/L	N/A	N/A	19.7		98		70-130			
1,1,1,2-Tetrachloroethane	11J0981		20.0	ug/L	N/A	N/A	20.2		101		65-120			
1,1,2,2-Tetrachloroethane	11J0981		20.0	ug/L	N/A	N/A	19.6		98		65-130			
Tetrachloroethene	11J0981		20.0	ug/L	N/A	N/A	19.5		97		70-135			
Toluene	11J0981		20.0	ug/L	N/A	N/A	19.0		95		70-135			
1,2,3-Trichlorobenzene	11J0981		20.0	ug/L	N/A	N/A	19.5		98		55-130			
1,2,4-Trichlorobenzene	11J0981		20.0	ug/L	N/A	N/A	18.4		92		40-135			
1,1,1-Trichloroethane	11J0981		20.0	ug/L	N/A	N/A	21.0		105		60-125			
1,1,2-Trichloroethane	11J0981		20.0	ug/L	N/A	N/A	20.1		100		75-125			
Trichloroethene	11J0981		20.0	ug/L	N/A	N/A	19.9		100		70-130			
Trichlorofluoromethane	11J0981		20.0	ug/L	N/A	N/A	20.6		103		55-145			
1,2,3-Trichloropropane	11J0981		20.0	ug/L	N/A	N/A	20.2		101		60-150			
1,2,4-Trimethylbenzene	11J0981		20.0	ug/L	N/A	N/A	19.8		99		70-140			
1,3,5-Trimethylbenzene	11J0981		20.0	ug/L	N/A	N/A	20.2		101		70-140			
Vinyl chloride	11J0981		20.0	ug/L	N/A	N/A	18.3		91		45-135			
Xylenes, total	11J0981		60.0	ug/L	N/A	N/A	59.2		99		70-130			
Surrogate: Dibromofluoromethane	*11J0981*			ug/L					*104*		*75-120*			
Surrogate: Toluene-d8	*11J0981*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J0981*			ug/L					*104*		*80-120*			
Acetone	11J1065		20.0	ug/L	N/A	N/A	16.4		82		60-150			
Acrylonitrile	11J1065		20.0	ug/L	N/A	N/A	15.0		75		50-145			
Benzene	11J1065		20.0	ug/L	N/A	N/A	18.5		93		70-130			
Bromobenzene	11J1065		20.0	ug/L	N/A	N/A	20.2		101		75-130			
Bromochloromethane	11J1065		20.0	ug/L	N/A	N/A	13.2		66		65-145			
Bromodichloromethane	11J1065		20.0	ug/L	N/A	N/A	15.0		75		60-130			
Bromoform	11J1065		20.0	ug/L	N/A	N/A	10.5		52		30-125			C
Bromomethane	11J1065		20.0	ug/L	N/A	N/A	20.6		103		35-130			CIN,ICV2
2-Butanone (MEK)	11J1065		20.0	ug/L	N/A	N/A	14.7		73		55-140			
n-Butylbenzene	11J1065		20.0	ug/L	N/A	N/A	18.8		94		55-135			
sec-Butylbenzene	11J1065		20.0	ug/L	N/A	N/A	18.9		94		65-135			
tert-Butylbenzene	11J1065		20.0	ug/L	N/A	N/A	19.2		96		60-135			
Carbon disulfide	11J1065		20.0	ug/L	N/A	N/A	15.0		75		40-130			
Carbon Tetrachloride	11J1065		20.0	ug/L	N/A	N/A	11.2		56		55-130			C
Chlorobenzene	11J1065		20.0	ug/L	N/A	N/A	19.1		96		75-125			
Chlorodibromomethane	11J1065		20.0	ug/L	N/A	N/A	13.1		65		45-125			
Chloroethane	11J1065		20.0	ug/L	N/A	N/A	0.480		2		55-135			L5
Chloroform	11J1065		20.0	ug/L	N/A	N/A	17.8		89		70-125			
Chloromethane	11J1065		20.0	ug/L	N/A	N/A	67.7		339		30-125			C,CIN,ICV2,L
2-Chlorotoluene	11J1065		20.0	ug/L	N/A	N/A	20.5		102		75-135			
4-Chlorotoluene	11J1065		20.0	ug/L	N/A	N/A	19.6		98		70-140			
1,2-Dibromo-3-chloropropane	11J1065		20.0	ug/L	N/A	N/A	6.07		30		35-130			L5

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Received: 10/17/11
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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1065		20.0	ug/L	N/A	N/A	13.0		65		70-135			L5
Dibromomethane	11J1065		20.0	ug/L	N/A	N/A	16.0		80		75-130			
1,2-Dichlorobenzene	11J1065		20.0	ug/L	N/A	N/A	18.8		94		65-135			
1,3-Dichlorobenzene	11J1065		20.0	ug/L	N/A	N/A	18.8		94		70-130			
1,4-Dichlorobenzene	11J1065		20.0	ug/L	N/A	N/A	18.8		94		60-140			
Dichlorodifluoromethane	11J1065		20.0	ug/L	N/A	N/A	6.54		33		35-130			L5
1,1-Dichloroethane	11J1065		20.0	ug/L	N/A	N/A	16.9		85		60-130			
1,2-Dichloroethane	11J1065		20.0	ug/L	N/A	N/A	18.4		92		65-140			
1,1-Dichloroethene	11J1065		20.0	ug/L	N/A	N/A	21.0		105		60-135			
cis-1,2-Dichloroethene	11J1065		20.0	ug/L	N/A	N/A	18.7		93		70-135			
trans-1,2-Dichloroethene	11J1065		20.0	ug/L	N/A	N/A	18.2		91		60-145			
1,2-Dichloropropane	11J1065		20.0	ug/L	N/A	N/A	16.6		83		65-130			
1,3-Dichloropropane	11J1065		20.0	ug/L	N/A	N/A	13.8		69		75-125			L5
2,2-Dichloropropane	11J1065		20.0	ug/L	N/A	N/A	2.92		15		25-120			L5
1,1-Dichloropropene	11J1065		20.0	ug/L	N/A	N/A	18.2		91		60-140			
cis-1,3-Dichloropropene	11J1065		20.0	ug/L	N/A	N/A	6.45		32		30-120			
trans-1,3-Dichloropropene	11J1065		20.0	ug/L	N/A	N/A	3.57		18		35-120			L5
Ethylbenzene	11J1065		20.0	ug/L	N/A	N/A	18.8		94		70-130			
Hexachlorobutadiene	11J1065		20.0	ug/L	N/A	N/A	19.5		98		60-135			
Hexane	11J1065		20.0	ug/L	N/A	N/A	18.6		93		40-135			
Isopropylbenzene	11J1065		20.0	ug/L	N/A	N/A	18.2		91		70-125			
p-Isopropyltoluene	11J1065		20.0	ug/L	N/A	N/A	18.6		93		60-140			
Methylene Chloride	11J1065		20.0	ug/L	N/A	N/A	8.61		43		55-145			L5
Methyl tert-Butyl Ether	11J1065		20.0	ug/L	N/A	N/A	16.8		84		50-135			
Naphthalene	11J1065		20.0	ug/L	N/A	N/A	15.1		75		40-135			
n-Propylbenzene	11J1065		20.0	ug/L	N/A	N/A	19.5		97		70-135			
Styrene	11J1065		20.0	ug/L	N/A	N/A	18.7		93		70-130			
1,1,1,2-Tetrachloroethane	11J1065		20.0	ug/L	N/A	N/A	15.3		77		65-120			
1,1,2,2-Tetrachloroethane	11J1065		20.0	ug/L	N/A	N/A	9.66		48		65-130			L5
Tetrachloroethene	11J1065		20.0	ug/L	N/A	N/A	19.5		98		70-135			
Toluene	11J1065		20.0	ug/L	N/A	N/A	18.6		93		70-135			
1,2,3-Trichlorobenzene	11J1065		20.0	ug/L	N/A	N/A	17.3		86		55-130			
1,2,4-Trichlorobenzene	11J1065		20.0	ug/L	N/A	N/A	17.3		86		40-135			
1,1,1-Trichloroethane	11J1065		20.0	ug/L	N/A	N/A	16.5		82		60-125			C9
1,1,2-Trichloroethane	11J1065		20.0	ug/L	N/A	N/A	18.1		91		75-125			
Trichloroethene	11J1065		20.0	ug/L	N/A	N/A	23.2		116		70-130			
Trichlorofluoromethane	11J1065		20.0	ug/L	N/A	N/A	11.8		59		55-145			
1,2,3-Trichloropropane	11J1065		20.0	ug/L	N/A	N/A	15.6		78		60-150			
1,2,4-Trimethylbenzene	11J1065		20.0	ug/L	N/A	N/A	19.5		97		70-140			
1,3,5-Trimethylbenzene	11J1065		20.0	ug/L	N/A	N/A	20.0		100		70-140			
Vinyl chloride	11J1065		20.0	ug/L	N/A	N/A	15.8		79		45-135			C
Xylenes, total	11J1065		60.0	ug/L	N/A	N/A	58.3		97		70-130			
Surrogate: Dibromofluoromethane	*11J1065*			ug/L					*59*		*75-120*			Z6
Surrogate: Toluene-d8	*11J1065*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1065*			ug/L					*107*		*80-120*			

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John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1260		20.0	ug/L	N/A	N/A	20.8		104		60-150			
Acrylonitrile	11J1260		20.0	ug/L	N/A	N/A	20.1		101		50-145			
Benzene	11J1260		20.0	ug/L	N/A	N/A	19.7		98		70-130			
Bromobenzene	11J1260		20.0	ug/L	N/A	N/A	20.2		101		75-130			
Bromochloromethane	11J1260		20.0	ug/L	N/A	N/A	21.0		105		65-145			
Bromodichloromethane	11J1260		20.0	ug/L	N/A	N/A	18.8		94		60-130			
Bromoform	11J1260		20.0	ug/L	N/A	N/A	18.5		93		30-125			
Bromomethane	11J1260		20.0	ug/L	N/A	N/A	22.0		110		35-130			
2-Butanone (MEK)	11J1260		20.0	ug/L	N/A	N/A	18.5		92		55-140			
n-Butylbenzene	11J1260		20.0	ug/L	N/A	N/A	18.9		95		55-135			
sec-Butylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.1		100		65-135			
tert-Butylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.0		100		60-135			
Carbon disulfide	11J1260		20.0	ug/L	N/A	N/A	20.4		102		40-130			
Carbon Tetrachloride	11J1260		20.0	ug/L	N/A	N/A	19.0		95		55-130			
Chlorobenzene	11J1260		20.0	ug/L	N/A	N/A	20.1		100		75-125			
Chlorodibromomethane	11J1260		20.0	ug/L	N/A	N/A	19.1		96		45-125			
Chloroethane	11J1260		20.0	ug/L	N/A	N/A	20.8		104		55-135			
Chloroform	11J1260		20.0	ug/L	N/A	N/A	19.4		97		70-125			
Chloromethane	11J1260		20.0	ug/L	N/A	N/A	20.8		104		30-125			
2-Chlorotoluene	11J1260		20.0	ug/L	N/A	N/A	20.8		104		75-135			
4-Chlorotoluene	11J1260		20.0	ug/L	N/A	N/A	20.2		101		70-140			
1,2-Dibromo-3-chloropropane	11J1260		20.0	ug/L	N/A	N/A	20.7		103		35-130			
1,2-Dibromoethane (EDB)	11J1260		20.0	ug/L	N/A	N/A	20.2		101		70-135			
Dibromomethane	11J1260		20.0	ug/L	N/A	N/A	19.1		95		75-130			
1,2-Dichlorobenzene	11J1260		20.0	ug/L	N/A	N/A	20.3		102		65-135			
1,3-Dichlorobenzene	11J1260		20.0	ug/L	N/A	N/A	19.1		96		70-130			
1,4-Dichlorobenzene	11J1260		20.0	ug/L	N/A	N/A	19.3		96		60-140			
Dichlorodifluoromethane	11J1260		20.0	ug/L	N/A	N/A	14.7		73		35-130			
1,1-Dichloroethane	11J1260		20.0	ug/L	N/A	N/A	19.8		99		60-130			
1,2-Dichloroethane	11J1260		20.0	ug/L	N/A	N/A	19.5		97		65-140			
1,1-Dichloroethene	11J1260		20.0	ug/L	N/A	N/A	19.3		96		60-135			
cis-1,2-Dichloroethene	11J1260		20.0	ug/L	N/A	N/A	19.9		99		70-135			
trans-1,2-Dichloroethene	11J1260		20.0	ug/L	N/A	N/A	19.8		99		60-145			
1,2-Dichloropropane	11J1260		20.0	ug/L	N/A	N/A	19.4		97		65-130			
1,3-Dichloropropane	11J1260		20.0	ug/L	N/A	N/A	20.0		100		75-125			
2,2-Dichloropropane	11J1260		20.0	ug/L	N/A	N/A	13.8		69		25-120			
1,1-Dichloropropene	11J1260		20.0	ug/L	N/A	N/A	19.9		99		60-140			
cis-1,3-Dichloropropene	11J1260		20.0	ug/L	N/A	N/A	18.4		92		30-120			
trans-1,3-Dichloropropene	11J1260		20.0	ug/L	N/A	N/A	17.5		88		35-120			
Ethylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.0		100		70-130			
Hexachlorobutadiene	11J1260		20.0	ug/L	N/A	N/A	18.6		93		60-135			
Hexane	11J1260		20.0	ug/L	N/A	N/A	17.4		87		40-135			
Isopropylbenzene	11J1260		20.0	ug/L	N/A	N/A	18.9		95		70-125			
p-Isopropyltoluene	11J1260		20.0	ug/L	N/A	N/A	19.5		98		60-140			

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Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methylene Chloride	11J1260		20.0	ug/L	N/A	N/A	21.1		106		55-145			
Methyl tert-Butyl Ether	11J1260		20.0	ug/L	N/A	N/A	21.1		105		50-135			
Naphthalene	11J1260		20.0	ug/L	N/A	N/A	19.0		95		40-135			
n-Propylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.1		100		70-135			
Styrene	11J1260		20.0	ug/L	N/A	N/A	20.3		102		70-130			
1,1,1,2-Tetrachloroethane	11J1260		20.0	ug/L	N/A	N/A	19.9		100		65-120			
1,1,2,2-Tetrachloroethane	11J1260		20.0	ug/L	N/A	N/A	20.8		104		65-130			
Tetrachloroethene	11J1260		20.0	ug/L	N/A	N/A	19.4		97		70-135			
Toluene	11J1260		20.0	ug/L	N/A	N/A	20.0		100		70-135			
1,2,3-Trichlorobenzene	11J1260		20.0	ug/L	N/A	N/A	20.0		100		55-130			
1,2,4-Trichlorobenzene	11J1260		20.0	ug/L	N/A	N/A	18.2		91		40-135			
1,1,1-Trichloroethane	11J1260		20.0	ug/L	N/A	N/A	20.0		100		60-125			
1,1,2-Trichloroethane	11J1260		20.0	ug/L	N/A	N/A	19.2		96		75-125			
Trichloroethene	11J1260		20.0	ug/L	N/A	N/A	18.8		94		70-130			
Trichlorofluoromethane	11J1260		20.0	ug/L	N/A	N/A	20.2		101		55-145			
1,2,3-Trichloropropane	11J1260		20.0	ug/L	N/A	N/A	21.2		106		60-150			
1,2,4-Trimethylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.6		103		70-140			
1,3,5-Trimethylbenzene	11J1260		20.0	ug/L	N/A	N/A	20.4		102		70-140			
Vinyl chloride	11J1260		20.0	ug/L	N/A	N/A	20.5		103		45-135			
Xylenes, total	11J1260		60.0	ug/L	N/A	N/A	62.0		103		70-130			
Surrogate: Dibromofluoromethane	*11J1260*			ug/L					*102*		*75-120*			
Surrogate: Toluene-d8	*11J1260*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1260*			ug/L					*101*		*80-120*			

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1051
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/17/11
Reported: 10/26/11 11:21

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ0999-01														
Acetone	11J0981	2.19	20.0	ug/L	N/A	N/A	21.2	23.3	95	106	45-150	10	35	
Acrylonitrile	11J0981	<10.0	20.0	ug/L	N/A	N/A	17.2	20.9	86	105	45-145	20	35	
Benzene	11J0981	0.0500	20.0	ug/L	N/A	N/A	18.2	20.0	91	100	50-130	9	20	
Bromobenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	21.9	23.7	110	119	60-135	8	15	
Bromochloromethane	11J0981	0.0200	20.0	ug/L	N/A	N/A	17.6	21.3	88	106	55-145	19	25	
Bromodichloromethane	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.9	21.4	100	107	50-130	7	15	
Bromoform	11J0981	<5.00	20.0	ug/L	N/A	N/A	22.9	25.3	115	126	30-125	10	25	M1
Bromomethane	11J0981	0.840	20.0	ug/L	N/A	N/A	21.7	25.5	104	123	30-130	16	35	CIN,ICV
2-Butanone (MEK)	11J0981	0.140	20.0	ug/L	N/A	N/A	17.8	20.5	88	102	45-140	14	35	
n-Butylbenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	18.8	21.1	94	106	40-135	12	20	
sec-Butylbenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.2	21.5	96	108	40-135	11	20	
tert-Butylbenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.9	21.5	100	108	40-135	8	20	
Carbon disulfide	11J0981	0.0900	20.0	ug/L	N/A	N/A	20.3	20.8	101	103	30-130	2	30	
Carbon Tetrachloride	11J0981	0.0700	20.0	ug/L	N/A	N/A	20.5	22.3	102	111	35-130	9	20	
Chlorobenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.4	20.9	97	104	60-130	7	15	
Chlorodibromomethane	11J0981	<5.00	20.0	ug/L	N/A	N/A	21.1	23.7	106	119	35-130	12	20	
Chloroethane	11J0981	0.420	20.0	ug/L	N/A	N/A	17.4	18.5	85	90	40-135	6	20	
Chloroform	11J0981	0.0700	20.0	ug/L	N/A	N/A	18.7	20.7	93	103	55-125	10	15	
Chloromethane	11J0981	0.750	20.0	ug/L	N/A	N/A	22.8	24.2	110	117	25-125	6	25	C,CIN,ICV
2-Chlorotoluene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.6	23.1	103	116	55-140	12	20	
4-Chlorotoluene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.4	22.2	102	111	50-140	9	20	
1,2-Dibromo-3-chloropropane	11J0981	<10.0	20.0	ug/L	N/A	N/A	22.0	23.5	110	118	35-130	7	30	
1,2-Dibromoethane (EDB)	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.0	22.8	100	114	55-140	13	20	
Dibromomethane	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.3	21.8	96	109	60-135	12	15	
1,2-Dichlorobenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	21.0	23.4	105	117	55-140	11	20	
1,3-Dichlorobenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.8	22.4	104	112	55-135	8	15	
1,4-Dichlorobenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	21.3	22.5	106	113	55-140	6	15	
Dichlorodifluoromethane	11J0981	<3.00	20.0	ug/L	N/A	N/A	9.93	11.0	50	55	15-130	11	25	
1,1-Dichloroethane	11J0981	0.760	20.0	ug/L	N/A	N/A	18.4	20.4	88	98	50-130	10	25	
1,2-Dichloroethane	11J0981	0.100	20.0	ug/L	N/A	N/A	19.7	22.0	98	110	55-140	11	15	
1,1-Dichloroethene	11J0981	4.73	20.0	ug/L	N/A	N/A	22.5	24.0	89	96	35-135	6	30	
cis-1,2-Dichloroethene	11J0981	<1.00	20.0	ug/L	N/A	N/A	18.4	20.2	92	101	45-135	9	20	
trans-1,2-Dichloroethene	11J0981	<1.00	20.0	ug/L	N/A	N/A	17.8	20.1	89	100	45-145	12	35	
1,2-Dichloropropane	11J0981	<1.00	20.0	ug/L	N/A	N/A	18.0	19.9	90	100	55-130	10	15	
1,3-Dichloropropane	11J0981	<1.00	20.0	ug/L	N/A	N/A	20.3	22.9	102	114	60-135	12	15	
2,2-Dichloropropane	11J0981	0.0300	20.0	ug/L	N/A	N/A	17.2	19.2	86	96	20-120	11	35	
1,1-Dichloropropene	11J0981	<1.00	20.0	ug/L	N/A	N/A	18.1	19.8	91	99	40-140	9	20	
cis-1,3-Dichloropropene	11J0981	0.0200	20.0	ug/L	N/A	N/A	19.5	21.6	97	108	25-120	10	20	
trans-1,3-Dichloropropene	11J0981	<5.00	20.0	ug/L	N/A	N/A	19.8	21.0	99	105	25-120	6	20	
Ethylbenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	18.8	20.6	94	103	45-135	9	20	
Hexachlorobutadiene	11J0981	<5.00	20.0	ug/L	N/A	N/A	20.0	20.9	100	105	40-135	4	30	
Hexane	11J0981	0.0100	20.0	ug/L	N/A	N/A	16.5	19.1	82	96	25-135	15	35	
Isopropylbenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	17.9	20.1	90	100	45-125	11	15	
p-Isopropyltoluene	11J0981	0.0100	20.0	ug/L	N/A	N/A	19.4	21.3	97	106	40-140	9	20	
Methylene Chloride	11J0981	0.530	20.0	ug/L	N/A	N/A	18.8	21.7	92	106	45-145	14	30	

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
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John Brimeyer

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ0999-01														
Methyl tert-Butyl Ether	11J0981	<1.00	20.0	ug/L	N/A	N/A	20.0	22.8	100	114	40-135	13	25	
Naphthalene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.5	23.7	102	118	40-135	14	20	
n-Propylbenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	19.2	21.3	96	106	45-140	10	20	
Styrene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.3	21.0	101	105	40-135	3	20	
1,1,1,2-Tetrachloroethane	11J0981	<1.00	20.0	ug/L	N/A	N/A	21.6	23.3	108	116	50-130	8	20	
1,1,2,2-Tetrachloroethane	11J0981	0.0200	20.0	ug/L	N/A	N/A	22.1	23.3	111	117	55-140	5	20	
Tetrachloroethene	11J0981	3.03	20.0	ug/L	N/A	N/A	21.0	22.2	90	96	40-135	6	20	
Toluene	11J0981	0.0700	20.0	ug/L	N/A	N/A	18.9	20.0	94	99	45-135	5	20	
1,2,3-Trichlorobenzene	11J0981	<5.00	20.0	ug/L	N/A	N/A	22.0	25.1	110	126	50-140	13	25	
1,2,4-Trichlorobenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	21.1	23.7	105	118	40-135	12	25	
1,1,1-Trichloroethane	11J0981	2.76	20.0	ug/L	N/A	N/A	22.3	24.5	98	108	40-125	9	20	
1,1,2-Trichloroethane	11J0981	<1.00	20.0	ug/L	N/A	N/A	20.4	23.4	102	117	60-130	14	15	
Trichloroethene	11J0981	<1.00	20.0	ug/L	N/A	N/A	19.3	21.6	96	108	50-130	11	20	
Trichlorofluoromethane	11J0981	<4.00	20.0	ug/L	N/A	N/A	18.8	21.3	94	106	40-145	12	25	
1,2,3-Trichloropropane	11J0981	<1.00	20.0	ug/L	N/A	N/A	23.0	25.4	115	127	55-150	10	20	
1,2,4-Trimethylbenzene	11J0981	0.0100	20.0	ug/L	N/A	N/A	20.0	22.4	100	112	45-140	11	20	
1,3,5-Trimethylbenzene	11J0981	<1.00	20.0	ug/L	N/A	N/A	20.1	22.9	101	115	45-140	13	20	
Vinyl chloride	11J0981	0.0100	20.0	ug/L	N/A	N/A	18.0	19.2	90	96	30-135	6	20	
Xylenes, total	11J0981	<3.00	60.0	ug/L	N/A	N/A	58.5	63.8	97	106	40-135	9	20	
Surrogate: Dibromofluoromethane	*11J0981*			ug/L					*102*	*106*	*75-120*			
Surrogate: Toluene-d8	*11J0981*			ug/L					*98*	*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J0981*			ug/L					*105*	*101*	*80-120*			
QC Source Sample: CUJ1141-11														
Acetone	11J1260	0.390	20.0	ug/L	N/A	N/A	20.4	21.6	100	106	45-150	6	35	
Acrylonitrile	11J1260	0.0100	20.0	ug/L	N/A	N/A	21.1	20.8	105	104	45-145	2	35	
Benzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	20.1	19.5	100	97	50-130	3	20	
Bromobenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.7	20.8	104	104	60-135	1	15	
Bromochloromethane	11J1260	<5.00	20.0	ug/L	N/A	N/A	20.3	20.8	102	104	55-145	2	25	
Bromodichloromethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.4	20.0	102	100	50-130	2	15	
Bromoform	11J1260	<5.00	20.0	ug/L	N/A	N/A	20.3	20.1	101	101	30-125	1	25	
Bromomethane	11J1260	0.720	20.0	ug/L	N/A	N/A	22.5	22.5	109	109	30-130	0	35	
2-Butanone (MEK)	11J1260	0.0300	20.0	ug/L	N/A	N/A	20.1	20.8	100	104	45-140	4	35	
n-Butylbenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.4	20.2	92	101	40-135	9	20	
sec-Butylbenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.5	20.9	97	105	40-135	7	20	
tert-Butylbenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.6	20.8	98	104	40-135	6	20	
Carbon disulfide	11J1260	0.0600	20.0	ug/L	N/A	N/A	21.0	19.5	104	97	30-130	7	30	
Carbon Tetrachloride	11J1260	0.0500	20.0	ug/L	N/A	N/A	17.8	17.6	89	88	35-130	1	20	
Chlorobenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	20.4	20.2	102	101	60-130	1	15	
Chlorodibromomethane	11J1260	0.0100	20.0	ug/L	N/A	N/A	20.7	20.4	103	102	35-130	1	20	
Chloroethane	11J1260	0.200	20.0	ug/L	N/A	N/A	18.5	19.5	92	97	40-135	5	20	
Chloroform	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.2	19.6	96	98	55-125	2	15	
Chloromethane	11J1260	0.280	20.0	ug/L	N/A	N/A	20.3	17.6	100	87	25-125	14	25	
2-Chlorotoluene	11J1260	<1.00	20.0	ug/L	N/A	N/A	21.1	21.1	106	106	55-140	0	20	
4-Chlorotoluene	11J1260	0.0100	20.0	ug/L	N/A	N/A	20.6	21.1	103	105	50-140	2	20	
1,2-Dibromo-3-chloropropane	11J1260	<10.0	20.0	ug/L	N/A	N/A	19.6	21.7	98	109	35-130	10	30	

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1141-11														
1,2-Dibromoethane (EDB)	11J1260	<10.0	20.0	ug/L	N/A	N/A	21.0	22.0	105	110	55-140	5	20	
Dibromomethane	11J1260	0.0100	20.0	ug/L	N/A	N/A	21.1	20.6	105	103	60-135	2	15	
1,2-Dichlorobenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	20.8	21.9	104	110	55-140	5	20	
1,3-Dichlorobenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.9	20.5	99	102	55-135	3	15	
1,4-Dichlorobenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.9	20.6	99	103	55-140	4	15	
Dichlorodifluoromethane	11J1260	<3.00	20.0	ug/L	N/A	N/A	12.4	13.4	62	67	15-130	8	25	
1,1-Dichloroethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.2	19.5	96	97	50-130	1	25	
1,2-Dichloroethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.7	20.3	99	101	55-140	3	15	
1,1-Dichloroethene	11J1260	<2.00	20.0	ug/L	N/A	N/A	17.2	17.0	86	85	35-135	1	30	
cis-1,2-Dichloroethene	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.1	20.6	100	103	45-135	3	20	
trans-1,2-Dichloroethene	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.9	17.9	94	89	45-145	5	35	
1,2-Dichloropropane	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.6	19.9	103	99	55-130	4	15	
1,3-Dichloropropane	11J1260	0.0100	20.0	ug/L	N/A	N/A	21.7	20.9	108	104	60-135	4	15	
2,2-Dichloropropane	11J1260	<4.00	20.0	ug/L	N/A	N/A	12.7	12.7	64	64	20-120	0	35	
1,1-Dichloropropene	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.1	18.4	90	92	40-140	1	20	
cis-1,3-Dichloropropene	11J1260	<5.00	20.0	ug/L	N/A	N/A	19.1	18.6	95	93	25-120	2	20	
trans-1,3-Dichloropropene	11J1260	<5.00	20.0	ug/L	N/A	N/A	19.2	18.6	96	93	25-120	3	20	
Ethylbenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.9	19.8	99	99	45-135	1	20	
Hexachlorobutadiene	11J1260	<5.00	20.0	ug/L	N/A	N/A	18.0	17.4	90	87	40-135	3	30	
Hexane	11J1260	0.0100	20.0	ug/L	N/A	N/A	15.0	16.1	75	80	25-135	7	35	
Isopropylbenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	18.2	18.8	91	94	45-125	4	15	
p-Isopropyltoluene	11J1260	0.0100	20.0	ug/L	N/A	N/A	18.7	20.4	94	102	40-140	9	20	
Methylene Chloride	11J1260	0.290	20.0	ug/L	N/A	N/A	19.4	21.0	95	104	45-145	8	30	
Methyl tert-Butyl Ether	11J1260	<1.00	20.0	ug/L	N/A	N/A	21.4	21.8	107	109	40-135	2	25	
Naphthalene	11J1260	0.0200	20.0	ug/L	N/A	N/A	20.7	21.6	103	108	40-135	4	20	
n-Propylbenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.7	20.2	98	101	45-140	3	20	
Styrene	11J1260	0.0100	20.0	ug/L	N/A	N/A	21.2	21.5	106	108	40-135	1	20	
1,1,1,2-Tetrachloroethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.7	20.7	103	104	50-130	0	20	
1,1,2,2-Tetrachloroethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	22.9	22.8	115	114	55-140	0	20	
Tetrachloroethene	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.3	17.9	91	89	40-135	2	20	
Toluene	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.7	19.8	98	99	45-135	1	20	
1,2,3-Trichlorobenzene	11J1260	<5.00	20.0	ug/L	N/A	N/A	21.8	23.1	109	115	50-140	6	25	
1,2,4-Trichlorobenzene	11J1260	0.0100	20.0	ug/L	N/A	N/A	19.8	20.8	99	104	40-135	5	25	
1,1,1-Trichloroethane	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.9	18.6	94	93	40-125	1	20	
1,1,2-Trichloroethane	11J1260	0.0100	20.0	ug/L	N/A	N/A	21.4	21.4	107	107	60-130	0	15	
Trichloroethene	11J1260	<1.00	20.0	ug/L	N/A	N/A	19.2	18.8	96	94	50-130	2	20	
Trichlorofluoromethane	11J1260	<4.00	20.0	ug/L	N/A	N/A	17.1	17.2	86	86	40-145	0	25	
1,2,3-Trichloropropane	11J1260	<1.00	20.0	ug/L	N/A	N/A	21.5	21.6	108	108	55-150	0	20	
1,2,4-Trimethylbenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	21.1	21.5	106	107	45-140	2	20	
1,3,5-Trimethylbenzene	11J1260	<1.00	20.0	ug/L	N/A	N/A	20.3	21.3	101	107	45-140	5	20	
Vinyl chloride	11J1260	<1.00	20.0	ug/L	N/A	N/A	18.3	18.2	92	91	30-135	0	20	
Xylenes, total	11J1260	<3.00	60.0	ug/L	N/A	N/A	62.2	61.3	104	102	40-135	1	20	
Surrogate: Dibromofluoromethane	*11J1260*			ug/L					*100*	*105*	*75-120*			
Surrogate: Toluene-d8	*11J1260*			ug/L					*100*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1260*			ug/L					*102*	*102*	*80-120*			

TERRACON - BETTENDORF	Work Order:	CUJ1051	Received: 10/17/11
870 40th Avenue			Reported: 10/26/11 11:21
Bettendorf, IA 52722	Project:	Chamberlain - Waterloo, IA	
John Brimeyer	Project Number:	07107020	

CERTIFICATION SUMMARY

TestAmerica Cedar Falls

Method	Matrix	Nelac	Iowa
SW 8260B	Water - NonPotable	X	X
SW	Water - NonPotable		

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

DATA QUALIFIERS AND DEFINITIONS

C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
C9	Calibration Verification recovery was outside the method control limits for this analyte. The LCS for this analyte met CCV acceptance criteria, and was used to validate the batch.
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
ICV	ICV recovery was above control limits. Analyte not detected, data not impacted.
ICV2	ICV recovery was outside control limits.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the control limits. Analyte not detected, data not impacted.
L5	Laboratory Control Sample was outside of acceptance limits. The MS or MSD was used to validate the batch.
M1	The MS and/or MSD were outside control limits.
Z6	Surrogate recovery was outside control limits.

ADDITIONAL COMMENTS

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Terracon - Bettendorf
Client #: _____
Address: 2640 12th St SW
City/State/Zip Code: Cedar Rapids, IA 52404
Project Manager: John Brimeyer
Email Address: jfbrimeyer@terracon.com
Telephone Number: _____ Fax: _____
Sampler Name: (Print Name) Holly Moriarty
Sampler Signature: [signature]

Project Name: Chamberlain
Project #: 07107020
Site/Location ID: Waterloo State: IA
Report To: John Brimeyer
Invoice To: "
Quote #: _____ PO#: _____

TAT: X Standard 5 day; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N
Email Results: Y N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify)
Analyze For: VOCs 8260
QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	VOCs 8260	REMARKS
OSMW-5	10/17/11	9:45			GW								X	
OSMW-7		10:50			GW									
OSMW-9		11:39												
Equipment Blank		1355												
MW-1		1350												
~~[illegible]~~ MW-15		1605												
~~[illegible]~~														
TRIP Blank					W								X	

Special Instructions:

LABORATORY COMMENTS:

Relinquished By: Rob Bergman	Date: 10/17/11	Time: 1657	Received By: [signature]	Date: 10/17/11	Time: 16:57
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Terracon Project: Chamberlain

City: CR

Date: 10/17/11 Receiver's Initials: [illegible] Time (Delivered): 16:57

Temperature Record:

Cooler ID# (If Applicable)

3.3 °C / On Ice

Thermometer:

- [ ] IR - 111531565 'D'
- [ ] IR - 111531506 'E'
- [ ] IR - 61854108 'Front'
- [ ] 101681126

Courier:

- [ ] UPS
- [ ] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [ ] ~~Client~~
- [ ] Other

- [x] Temp Blank
- [ ] Temperature out of compliance

Custody seals present?
- [ ] Yes

Custody seals intact?
- [ ] Yes
- [ ] No

- [ ] Non-Conformance report started

Exceptions Noted

- [ ] Sample(s) not received in a cooler.
- [ ] Samples(s) received same day of sampling.
  - [ ] Evidence of a chilling process
- [ ] No Temp. Blank. Inside temperature of cooler recorded.
- [ ] Temperature not taken:

***Refer to SOP CF-SS-01 for Temperature Criteria**

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

October 27, 2011

Client:
TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722

Attn: John Brimeyer

Work Order: CUJ1143
Project Name: Chamberlain - Waterloo, IA
Project Number: 07107020

Date Received: 10/18/11

The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
OSMW-4	CUJ1143-01	10/18/11 08:40
OSMW-8	CUJ1143-02	10/18/11 09:40
OSMW-3	CUJ1143-03	10/18/11 10:18
Dup-1	CUJ1143-04	10/18/11
MW-10	CUJ1143-05	10/18/11 10:56
OSMW-14	CUJ1143-06	10/18/11 11:28
OSMW-13	CUJ1143-07	10/18/11 12:40
OSMW-11	CUJ1143-08	10/18/11 13:15
OSMW-10	CUJ1143-09	10/18/11 14:02
Trip Blank	CUJ1143-10	10/18/11
MW-12	CUJ1143-11	10/18/11 15:05
MW-16	CUJ1143-12	10/18/11 17:20
Dup-2	CUJ1143-13	10/18/11

Samples were received into laboratory at a temperature of 5.40 °C.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TERRACON - BETTENDORF	Work Order:	CUJ1143	Received:	10/18/11
870 40th Avenue			Reported:	10/27/11 11:18
Bettendorf, IA 52722	Project:	Chamberlain - Waterloo, IA		
John Brimeyer	Project Number:	07107020		

Approved By:

Angela Muehling

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

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THE LEADER IN ENVIRONMENTAL TESTING
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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-01 (OSMW-4 - Ground Water)					**Sampled: 10/18/11 08:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<100	CIN	ug/L	100	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Acrylonitrile	<100		ug/L	100	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Benzene	<5.00		ug/L	5.00	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Bromobenzene	<10.0	CIN	ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Bromochloromethane	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Bromodichloromethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Bromoform	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Bromomethane	<40.0		ug/L	40.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<100		ug/L	100	10	10/25/11 16:20	sjn	11J1320	SW 8260B
n-Butylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
sec-Butylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
tert-Butylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Carbon disulfide	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<20.0		ug/L	20.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Chlorobenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Chlorodibromomethane	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Chloroethane	<40.0		ug/L	40.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Chloroform	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Chloromethane	<30.0		ug/L	30.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
2-Chlorotoluene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
4-Chlorotoluene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<100		ug/L	100	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<100		ug/L	100	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Dibromomethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<10.0	CIN	ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<30.0		ug/L	30.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1-Dichloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1-Dichloroethene	<20.0		ug/L	20.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	**30.0**		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<40.0		ug/L	40.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Ethylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Hexane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Isopropylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-01 (OSMW-4 - Ground Water) - cont.					**Sampled: 10/18/11 08:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Methylene Chloride	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Naphthalene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
n-Propylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Styrene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Tetrachloroethene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Toluene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<50.0		ug/L	50.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1,1-Trichloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Trichloroethene	**2280**		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Trichlorofluoromethane	<40.0		ug/L	40.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<40.0		ug/L	40.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Vinyl chloride	<10.0		ug/L	10.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Xylenes, total	<30.0		ug/L	30.0	10	10/25/11 16:20	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*101 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW
Sample ID: CUJ1143-02 (OSMW-8 - Ground Water)					**Sampled: 10/18/11 09:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 13:21	sjn	11J1320	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Sample ID: CUJ1143-02 (OSMW-8 - Ground Water) - cont. **Sampled: 10/18/11 09:40** **Recvd: 10/18/11 17:45**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Trichloroethene	**7.13**		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-02 (OSMW-8 - Ground Water) - cont.					**Sampled: 10/18/11 09:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 13:21	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*95 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-03 (OSMW-3 - Ground Water)					**Sampled: 10/18/11 10:18**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 12:59	sjn	11J1320	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-03 (OSMW-3 - Ground Water) - cont.					**Sampled: 10/18/11 10:18**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 12:59	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-04 (Dup-1 - Ground Water)					**Sampled: 10/18/11**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 17:05	sjn	11J1320	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Chloroform	**1.32**		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1-Dichloroethane	**2.74**		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1-Dichloroethene	**2.95**		ug/L	2.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	**33.2**		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-04 (Dup-1 - Ground Water) - cont.					**Sampled: 10/18/11**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Tetrachloroethene	**8.88**		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1,1-Trichloroethane	**11.4**		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Trichloroethene	**2570**		ug/L	50.0	50	10/26/11 16:16	sjn	11J1409	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 17:05	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Dibromofluoromethane (75-120%)	*102 %*								
Surr: Toluene-d8 (80-120%)	*97 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*97 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*96 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-05 (MW-10 - Ground Water)					**Sampled: 10/18/11 10:56**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 12:36	sjn	11J1320	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-05 (MW-10 - Ground Water) - cont.					**Sampled: 10/18/11 10:56**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1-Dichloroethane	**1.75**		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Tetrachloroethene	**7.40**		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-05 (MW-10 - Ground Water) - cont.					**Sampled: 10/18/11 10:56**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
1,1,1-Trichloroethane	**27.0**		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Trichloroethene	**43.7**		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 12:36	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-06 (OSMW-14 - Ground Water)					**Sampled: 10/18/11 11:28**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B

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704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Sample ID: CUJ1143-06 (OSMW-14 - Ground Water) - cont. Sampled: 10/18/11 11:28 Recvd: 10/18/11 17:45

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Volatile Organic Compounds - cont.									
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 02:22	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-07 (OSMW-13 - Ground Water)					**Sampled: 10/18/11 12:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-07 (OSMW-13 - Ground Water) - cont.					**Sampled: 10/18/11 12:40**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Trichloroethene	**9.60**		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 01:57	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*97 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-08 (OSMW-11 - Ground Water)					**Sampled: 10/18/11 13:15**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Sample ID: CUJ1143-08 (OSMW-11 - Ground Water) - cont. **Sampled: 10/18/11 13:15** **Recvd: 10/18/11 17:45**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-08 (OSMW-11 - Ground Water) - cont.					**Sampled: 10/18/11 13:15**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 01:32	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-09 (OSMW-10 - Ground Water)					**Sampled: 10/18/11 14:02**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-09 (OSMW-10 - Ground Water) - cont.					**Sampled: 10/18/11 14:02**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Trichloroethene	**3.26**		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 00:42	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-10 (Trip Blank - Water)					**Sampled: 10/18/11**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-10 (Trip Blank - Water) - cont.					**Sampled: 10/18/11**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 01:07	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*99 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1143-11 (MW-12 - Ground Water)					**Sampled: 10/18/11 15:05**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<50.0		ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Benzene	<2.50		ug/L	2.50	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Bromobenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Bromochloromethane	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Bromodichloromethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Bromoform	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Bromomethane	<50.0	CIN	ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
2-Butanone (MEK)	<50.0		ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
n-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
sec-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
tert-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Carbon disulfide	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Carbon Tetrachloride	<10.0		ug/L	10.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Chlorobenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-11 (MW-12 - Ground Water) - cont.					**Sampled: 10/18/11 15:05**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
Chlorodibromomethane	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Chloroethane	<20.0		ug/L	20.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Chloroform	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Chloromethane	<15.0		ug/L	15.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
2-Chlorotoluene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
4-Chlorotoluene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2-Dibromo-3-chloropropane	<50.0		ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2-Dibromoethane (EDB)	<50.0		ug/L	50.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Dibromomethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2-Dichlorobenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,3-Dichlorobenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,4-Dichlorobenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Dichlorodifluoromethane	<15.0		ug/L	15.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1-Dichloroethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2-Dichloroethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1-Dichloroethene	<10.0		ug/L	10.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
cis-1,2-Dichloroethene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
trans-1,2-Dichloroethene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2-Dichloropropane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,3-Dichloropropane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
2,2-Dichloropropane	<20.0		ug/L	20.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1-Dichloropropene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
cis-1,3-Dichloropropene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
trans-1,3-Dichloropropene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Ethylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Hexachlorobutadiene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Hexane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Isopropylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
p-Isopropyltoluene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Methylene Chloride	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Methyl tert-Butyl Ether	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Naphthalene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
n-Propylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Styrene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1,1,2-Tetrachloroethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1,2,2-Tetrachloroethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Tetrachloroethene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Toluene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2,3-Trichlorobenzene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2,4-Trichlorobenzene	<25.0		ug/L	25.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1,1-Trichloroethane	**6.25**		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,1,2-Trichloroethane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Trichloroethene	**302**		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-11 (MW-12 - Ground Water) - cont.					**Sampled: 10/18/11 15:05**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<20.0		ug/L	20.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,2,4-Trimethylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
1,3,5-Trimethylbenzene	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Vinyl chloride	<5.00		ug/L	5.00	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Xylenes, total	<15.0		ug/L	15.0	5	10/26/11 15:51	sjn	11J1409	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*103 %*								
Surr: Toluene-d8 (80-120%)	*100 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*96 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW
Sample ID: CUJ1143-12 (MW-16 - Ground Water)					**Sampled: 10/18/11 17:20**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Bromomethane	<10.0	CIN	ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1-Dichloroethane	**4.43**		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-12 (MW-16 - Ground Water) - cont.					**Sampled: 10/18/11 17:20**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	**4.15**		ug/L	2.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
cis-1,2-Dichloroethene	**25.4**		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Tetrachloroethene	**32.7**		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1,1-Trichloroethane	**16.4**		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Trichloroethene	**37.1**		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 15:25	sjn	11J1409	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*104 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*97 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-13 (Dup-2 - Ground Water)					**Sampled: 10/18/11**		**Recvd: 10/18/11 17:45**		
Volatile Organic Compounds									
Acetone	<10.0		ug/L	10.0	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Bromobenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Bromomethane	<4.00	CIN	ug/L	4.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 04:29	sjn	11J1336	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
cis-1,2-Dichloroethene	**4.41**		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

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Received: 10/18/11
Reported: 10/27/11 11:18

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1143-13 (Dup-2 - Ground Water) - cont.					**Sampled: 10/18/11**			**Recvd: 10/18/11 17:45**	
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Tetrachloroethene	**1.65**		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1,1-Trichloroethane	**6.68**		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Trichloroethene	**356**		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2,3-Trichloropropane	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 04:29	sjn	11J1336	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*101 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1320			ug/L	N/A	10.0	<10.0							CIN
Acrylonitrile	11J1320			ug/L	N/A	10.0	<10.0							
Benzene	11J1320			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1320			ug/L	N/A	1.00	<1.00							CIN
Bromochloromethane	11J1320			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1320			ug/L	N/A	1.00	<1.00							
Bromoform	11J1320			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1320			ug/L	N/A	4.00	<4.00							
2-Butanone (MEK)	11J1320			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1320			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1320			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1320			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1320			ug/L	N/A	4.00	<4.00							
Chloroform	11J1320			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1320			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1320			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1320			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11J1320			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							CIN
Dichlorodifluoromethane	11J1320			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1320			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1320			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1320			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1320			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1320			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1320			ug/L	N/A	5.00	<5.00							
Hexane	11J1320			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1320			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J1320			ug/L	N/A	5.00	<5.00							

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J1320			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1320			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Styrene	11J1320			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1320			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1320			ug/L	N/A	1.00	<1.00							
Toluene	11J1320			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1320			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1320			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1320			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1320			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1320			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*98*		*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*97*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*98*		*75-110*			
Acetone	11J1336			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11J1336			ug/L	N/A	10.0	<10.0							
Benzene	11J1336			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1336			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J1336			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1336			ug/L	N/A	1.00	<1.00							
Bromoform	11J1336			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1336			ug/L	N/A	4.00	<4.00							CIN
2-Butanone (MEK)	11J1336			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1336			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1336			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1336			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1336			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1336			ug/L	N/A	4.00	<4.00							
Chloroform	11J1336			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1336			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1336			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1336			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1336			ug/L	N/A	10.0	<10.0							

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
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Received: 10/18/11
Reported: 10/27/11 11:18

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1336			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1336			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1336			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1336			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1336			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11J1336			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1336			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1336			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1336			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1336			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1336			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1336			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1336			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1336			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1336			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1336			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1336			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1336			ug/L	N/A	5.00	<5.00							
Hexane	11J1336			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1336			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J1336			ug/L	N/A	5.00	<5.00							
Methyl tert-Butyl Ether	11J1336			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1336			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
Styrene	11J1336			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1336			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1336			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1336			ug/L	N/A	1.00	<1.00							
Toluene	11J1336			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1336			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1336			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1336			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1336			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1336			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1336			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1336			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1336			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1336			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1336			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1336*			ug/L					*99*		*75-120*			
Surrogate: Toluene-d8	*11J1336*			ug/L					*100*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1336*			ug/L					*97*		*75-110*			

TERRACON - BETTENDORF
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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1409			ug/L	N/A	10.0	<10.0							
Acrylonitrile	11J1409			ug/L	N/A	10.0	<10.0							
Benzene	11J1409			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1409			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J1409			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1409			ug/L	N/A	1.00	<1.00							
Bromoform	11J1409			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1409			ug/L	N/A	4.00	<4.00							CIN
2-Butanone (MEK)	11J1409			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1409			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1409			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1409			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1409			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1409			ug/L	N/A	4.00	<4.00							
Chloroform	11J1409			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1409			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1409			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1409			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1409			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11J1409			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1409			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1409			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1409			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1409			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	11J1409			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1409			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1409			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1409			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1409			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1409			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1409			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1409			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1409			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1409			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1409			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1409			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1409			ug/L	N/A	5.00	<5.00							
Hexane	11J1409			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1409			ug/L	N/A	1.00	<1.00							

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LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methylene Chloride	11J1409			ug/L	N/A	5.00	<5.00							
Methyl tert-Butyl Ether	11J1409			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1409			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
Styrene	11J1409			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1409			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1409			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1409			ug/L	N/A	1.00	<1.00							
Toluene	11J1409			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1409			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1409			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1409			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1409			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1409			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1409			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1409			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1409			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1409			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1409			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1409*			ug/L					*101*		*75-120*			
Surrogate: Toluene-d8	*11J1409*			ug/L					*100*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1409*			ug/L					*97*		*75-110*			

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1320		20.0	ug/L	N/A	N/A	21.3		106		60-150			CIN
Acrylonitrile	11J1320		20.0	ug/L	N/A	N/A	15.7		78		50-145			
Benzene	11J1320		20.0	ug/L	N/A	N/A	19.2		96		70-130			
Bromobenzene	11J1320		20.0	ug/L	N/A	N/A	17.5		87		75-130			CIN
Bromochloromethane	11J1320		20.0	ug/L	N/A	N/A	19.2		96		65-145			
Bromodichloromethane	11J1320		20.0	ug/L	N/A	N/A	18.3		92		60-130			
Bromoform	11J1320		20.0	ug/L	N/A	N/A	14.2		71		30-125			
Bromomethane	11J1320		20.0	ug/L	N/A	N/A	17.9		90		35-130			
2-Butanone (MEK)	11J1320		20.0	ug/L	N/A	N/A	16.6		83		55-140			
n-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	21.1		106		55-135			
sec-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	21.8		109		65-135			
tert-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.8		104		60-135			
Carbon disulfide	11J1320		20.0	ug/L	N/A	N/A	20.3		102		40-130			
Carbon Tetrachloride	11J1320		20.0	ug/L	N/A	N/A	19.9		99		55-130			
Chlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.9		95		75-125			
Chlorodibromomethane	11J1320		20.0	ug/L	N/A	N/A	17.5		88		45-125			
Chloroethane	11J1320		20.0	ug/L	N/A	N/A	17.9		90		55-135			
Chloroform	11J1320		20.0	ug/L	N/A	N/A	18.6		93		70-125			
Chloromethane	11J1320		20.0	ug/L	N/A	N/A	15.8		79		30-125			
2-Chlorotoluene	11J1320		20.0	ug/L	N/A	N/A	18.2		91		75-135			
4-Chlorotoluene	11J1320		20.0	ug/L	N/A	N/A	18.9		94		70-140			
1,2-Dibromo-3-chloropropane	11J1320		20.0	ug/L	N/A	N/A	13.4		67		35-130			
1,2-Dibromoethane (EDB)	11J1320		20.0	ug/L	N/A	N/A	18.2		91		70-135			
Dibromomethane	11J1320		20.0	ug/L	N/A	N/A	18.8		94		75-130			
1,2-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.0		90		65-135			
1,3-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-130			
1,4-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.4		92		60-140			CIN
Dichlorodifluoromethane	11J1320		20.0	ug/L	N/A	N/A	13.4		67		35-130			
1,1-Dichloroethane	11J1320		20.0	ug/L	N/A	N/A	18.9		94		60-130			
1,2-Dichloroethane	11J1320		20.0	ug/L	N/A	N/A	18.3		92		65-140			
1,1-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.5		93		60-135			
cis-1,2-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	20.0		100		70-135			
trans-1,2-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.7		93		60-145			
1,2-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	18.7		94		65-130			
1,3-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	18.6		93		75-125			
2,2-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	21.1		105		25-120			
1,1-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	19.4		97		60-140			
cis-1,3-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		30-120			
trans-1,3-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	17.1		86		35-120			
Ethylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.0		100		70-130			
Hexachlorobutadiene	11J1320		20.0	ug/L	N/A	N/A	19.5		97		60-135			
Hexane	11J1320		20.0	ug/L	N/A	N/A	22.5		112		40-135			
Isopropylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-125			
p-Isopropyltoluene	11J1320		20.0	ug/L	N/A	N/A	21.0		105		60-140			
Methylene Chloride	11J1320		20.0	ug/L	N/A	N/A	17.7		88		55-145			

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J1320		20.0	ug/L	N/A	N/A	18.5		93		50-135			
Naphthalene	11J1320		20.0	ug/L	N/A	N/A	14.5		72		40-135			
n-Propylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-135			
Styrene	11J1320		20.0	ug/L	N/A	N/A	19.5		98		70-130			
1,1,1,2-Tetrachloroethane	11J1320		20.0	ug/L	N/A	N/A	18.2		91		65-120			
1,1,2,2-Tetrachloroethane	11J1320		20.0	ug/L	N/A	N/A	15.2		76		65-130			
Tetrachloroethene	11J1320		20.0	ug/L	N/A	N/A	20.4		102		70-135			
Toluene	11J1320		20.0	ug/L	N/A	N/A	19.9		99		70-135			
1,2,3-Trichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	17.1		86		55-130			
1,2,4-Trichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	16.7		84		40-135			
1,1,1-Trichloroethane	11J1320		20.0	ug/L	N/A	N/A	21.0		105		60-125			
1,1,2-Trichloroethane	11J1320		20.0	ug/L	N/A	N/A	17.6		88		75-125			
Trichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.7		94		70-130			
Trichlorofluoromethane	11J1320		20.0	ug/L	N/A	N/A	21.0		105		55-145			
1,2,3-Trichloropropane	11J1320		20.0	ug/L	N/A	N/A	14.4		72		60-150			
1,2,4-Trimethylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.5		98		70-140			
1,3,5-Trimethylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.6		103		70-140			
Vinyl chloride	11J1320		20.0	ug/L	N/A	N/A	18.9		94		45-135			
Xylenes, total	11J1320		60.0	ug/L	N/A	N/A	59.6		99		70-130			
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*99*		*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*98*		*80-120*			
Acetone	11J1336		20.0	ug/L	N/A	N/A	24.0		120		60-150			
Acrylonitrile	11J1336		20.0	ug/L	N/A	N/A	22.2		111		50-145			
Benzene	11J1336		20.0	ug/L	N/A	N/A	21.6		108		70-130			
Bromobenzene	11J1336		20.0	ug/L	N/A	N/A	20.4		102		75-130			
Bromochloromethane	11J1336		20.0	ug/L	N/A	N/A	21.8		109		65-145			
Bromodichloromethane	11J1336		20.0	ug/L	N/A	N/A	20.5		102		60-130			
Bromoform	11J1336		20.0	ug/L	N/A	N/A	18.4		92		30-125			
Bromomethane	11J1336		20.0	ug/L	N/A	N/A	12.1		60		35-130			CIN
2-Butanone (MEK)	11J1336		20.0	ug/L	N/A	N/A	23.3		116		55-140			
n-Butylbenzene	11J1336		20.0	ug/L	N/A	N/A	19.9		100		55-135			
sec-Butylbenzene	11J1336		20.0	ug/L	N/A	N/A	21.2		106		65-135			
tert-Butylbenzene	11J1336		20.0	ug/L	N/A	N/A	20.9		105		60-135			
Carbon disulfide	11J1336		20.0	ug/L	N/A	N/A	21.2		106		40-130			
Carbon Tetrachloride	11J1336		20.0	ug/L	N/A	N/A	22.9		115		55-130			
Chlorobenzene	11J1336		20.0	ug/L	N/A	N/A	20.7		104		75-125			
Chlorodibromomethane	11J1336		20.0	ug/L	N/A	N/A	19.7		99		45-125			
Chloroethane	11J1336		20.0	ug/L	N/A	N/A	21.6		108		55-135			
Chloroform	11J1336		20.0	ug/L	N/A	N/A	21.0		105		70-125			
Chloromethane	11J1336		20.0	ug/L	N/A	N/A	16.4		82		30-125			
2-Chlorotoluene	11J1336		20.0	ug/L	N/A	N/A	21.6		108		75-135			
4-Chlorotoluene	11J1336		20.0	ug/L	N/A	N/A	21.5		108		70-140			
1,2-Dibromo-3-chloropropane	11J1336		20.0	ug/L	N/A	N/A	20.7		104		35-130			

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1336		20.0	ug/L	N/A	N/A	22.1		111		70-135			
Dibromomethane	11J1336		20.0	ug/L	N/A	N/A	21.2		106		75-130			
1,2-Dichlorobenzene	11J1336		20.0	ug/L	N/A	N/A	20.0		100		65-135			
1,3-Dichlorobenzene	11J1336		20.0	ug/L	N/A	N/A	20.2		101		70-130			
1,4-Dichlorobenzene	11J1336		20.0	ug/L	N/A	N/A	19.9		99		60-140			
Dichlorodifluoromethane	11J1336		20.0	ug/L	N/A	N/A	14.9		74		35-130			
1,1-Dichloroethane	11J1336		20.0	ug/L	N/A	N/A	21.0		105		60-130			
1,2-Dichloroethane	11J1336		20.0	ug/L	N/A	N/A	21.5		108		65-140			
1,1-Dichloroethene	11J1336		20.0	ug/L	N/A	N/A	20.4		102		60-135			
cis-1,2-Dichloroethene	11J1336		20.0	ug/L	N/A	N/A	20.5		102		70-135			
trans-1,2-Dichloroethene	11J1336		20.0	ug/L	N/A	N/A	20.6		103		60-145			
1,2-Dichloropropane	11J1336		20.0	ug/L	N/A	N/A	21.6		108		65-130			
1,3-Dichloropropane	11J1336		20.0	ug/L	N/A	N/A	22.0		110		75-125			
2,2-Dichloropropane	11J1336		20.0	ug/L	N/A	N/A	20.4		102		25-120			
1,1-Dichloropropene	11J1336		20.0	ug/L	N/A	N/A	21.3		107		60-140			
cis-1,3-Dichloropropene	11J1336		20.0	ug/L	N/A	N/A	21.6		108		30-120			
trans-1,3-Dichloropropene	11J1336		20.0	ug/L	N/A	N/A	20.8		104		35-120			
Ethylbenzene	11J1336		20.0	ug/L	N/A	N/A	21.8		109		70-130			
Hexachlorobutadiene	11J1336		20.0	ug/L	N/A	N/A	20.1		100		60-135			
Hexane	11J1336		20.0	ug/L	N/A	N/A	19.8		99		40-135			
Isopropylbenzene	11J1336		20.0	ug/L	N/A	N/A	20.5		102		70-125			
p-Isopropyltoluene	11J1336		20.0	ug/L	N/A	N/A	20.4		102		60-140			
Methylene Chloride	11J1336		20.0	ug/L	N/A	N/A	20.3		101		55-145			
Methyl tert-Butyl Ether	11J1336		20.0	ug/L	N/A	N/A	22.1		111		50-135			
Naphthalene	11J1336		20.0	ug/L	N/A	N/A	18.7		94		40-135			
n-Propylbenzene	11J1336		20.0	ug/L	N/A	N/A	21.8		109		70-135			
Styrene	11J1336		20.0	ug/L	N/A	N/A	21.6		108		70-130			
1,1,1,2-Tetrachloroethane	11J1336		20.0	ug/L	N/A	N/A	21.7		109		65-120			
1,1,2,2-Tetrachloroethane	11J1336		20.0	ug/L	N/A	N/A	21.3		107		65-130			
Tetrachloroethene	11J1336		20.0	ug/L	N/A	N/A	20.2		101		70-135			
Toluene	11J1336		20.0	ug/L	N/A	N/A	22.0		110		70-135			
1,2,3-Trichlorobenzene	11J1336		20.0	ug/L	N/A	N/A	18.2		91		55-130			
1,2,4-Trichlorobenzene	11J1336		20.0	ug/L	N/A	N/A	18.6		93		40-135			
1,1,1-Trichloroethane	11J1336		20.0	ug/L	N/A	N/A	22.8		114		60-125			
1,1,2-Trichloroethane	11J1336		20.0	ug/L	N/A	N/A	22.1		110		75-125			
Trichloroethene	11J1336		20.0	ug/L	N/A	N/A	21.1		106		70-130			
Trichlorofluoromethane	11J1336		20.0	ug/L	N/A	N/A	21.9		110		55-145			
1,2,3-Trichloropropane	11J1336		20.0	ug/L	N/A	N/A	21.9		110		60-150			
1,2,4-Trimethylbenzene	11J1336		20.0	ug/L	N/A	N/A	21.4		107		70-140			
1,3,5-Trimethylbenzene	11J1336		20.0	ug/L	N/A	N/A	22.0		110		70-140			
Vinyl chloride	11J1336		20.0	ug/L	N/A	N/A	19.6		98		45-135			
Xylenes, total	11J1336		60.0	ug/L	N/A	N/A	65.4		109		70-130			
Surrogate: Dibromofluoromethane	*11J1336*			ug/L					*100*		*75-120*			
Surrogate: Toluene-d8	*11J1336*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1336*			ug/L					*99*		*80-120*			

US EPA ARCHIVE DOCUMENT

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John Brimeyer

Work Order: CUJ1143
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Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1409		20.0	ug/L	N/A	N/A	27.2		136		60-150			
Acrylonitrile	11J1409		20.0	ug/L	N/A	N/A	24.2		121		50-145			
Benzene	11J1409		20.0	ug/L	N/A	N/A	21.7		108		70-130			
Bromobenzene	11J1409		20.0	ug/L	N/A	N/A	21.0		105		75-130			
Bromochloromethane	11J1409		20.0	ug/L	N/A	N/A	21.1		106		65-145			
Bromodichloromethane	11J1409		20.0	ug/L	N/A	N/A	21.3		106		60-130			
Bromoform	11J1409		20.0	ug/L	N/A	N/A	18.7		94		30-125			
Bromomethane	11J1409		20.0	ug/L	N/A	N/A	14.0		70		35-130			CIN
2-Butanone (MEK)	11J1409		20.0	ug/L	N/A	N/A	24.7		123		55-140			
n-Butylbenzene	11J1409		20.0	ug/L	N/A	N/A	21.4		107		55-135			
sec-Butylbenzene	11J1409		20.0	ug/L	N/A	N/A	21.6		108		65-135			
tert-Butylbenzene	11J1409		20.0	ug/L	N/A	N/A	21.5		107		60-135			
Carbon disulfide	11J1409		20.0	ug/L	N/A	N/A	21.0		105		40-130			
Carbon Tetrachloride	11J1409		20.0	ug/L	N/A	N/A	23.2		116		55-130			
Chlorobenzene	11J1409		20.0	ug/L	N/A	N/A	21.0		105		75-125			
Chlorodibromomethane	11J1409		20.0	ug/L	N/A	N/A	20.9		105		45-125			
Chloroethane	11J1409		20.0	ug/L	N/A	N/A	20.9		105		55-135			
Chloroform	11J1409		20.0	ug/L	N/A	N/A	21.9		109		70-125			
Chloromethane	11J1409		20.0	ug/L	N/A	N/A	18.2		91		30-125			
2-Chlorotoluene	11J1409		20.0	ug/L	N/A	N/A	22.1		110		75-135			
4-Chlorotoluene	11J1409		20.0	ug/L	N/A	N/A	21.8		109		70-140			
1,2-Dibromo-3-chloropropane	11J1409		20.0	ug/L	N/A	N/A	21.0		105		35-130			
1,2-Dibromoethane (EDB)	11J1409		20.0	ug/L	N/A	N/A	22.1		110		70-135			
Dibromomethane	11J1409		20.0	ug/L	N/A	N/A	21.6		108		75-130			
1,2-Dichlorobenzene	11J1409		20.0	ug/L	N/A	N/A	20.9		104		65-135			
1,3-Dichlorobenzene	11J1409		20.0	ug/L	N/A	N/A	21.0		105		70-130			
1,4-Dichlorobenzene	11J1409		20.0	ug/L	N/A	N/A	21.2		106		60-140			
Dichlorodifluoromethane	11J1409		20.0	ug/L	N/A	N/A	15.1		75		35-130			
1,1-Dichloroethane	11J1409		20.0	ug/L	N/A	N/A	21.1		106		60-130			
1,2-Dichloroethane	11J1409		20.0	ug/L	N/A	N/A	23.2		116		65-140			
1,1-Dichloroethene	11J1409		20.0	ug/L	N/A	N/A	20.3		101		60-135			
cis-1,2-Dichloroethene	11J1409		20.0	ug/L	N/A	N/A	21.1		105		70-135			
trans-1,2-Dichloroethene	11J1409		20.0	ug/L	N/A	N/A	21.4		107		60-145			
1,2-Dichloropropane	11J1409		20.0	ug/L	N/A	N/A	22.3		112		65-130			
1,3-Dichloropropane	11J1409		20.0	ug/L	N/A	N/A	23.2		116		75-125			
2,2-Dichloropropane	11J1409		20.0	ug/L	N/A	N/A	21.0		105		25-120			
1,1-Dichloropropene	11J1409		20.0	ug/L	N/A	N/A	22.0		110		60-140			
cis-1,3-Dichloropropene	11J1409		20.0	ug/L	N/A	N/A	23.1		115		30-120			
trans-1,3-Dichloropropene	11J1409		20.0	ug/L	N/A	N/A	23.0		115		35-120			
Ethylbenzene	11J1409		20.0	ug/L	N/A	N/A	21.8		109		70-130			
Hexachlorobutadiene	11J1409		20.0	ug/L	N/A	N/A	20.5		102		60-135			
Hexane	11J1409		20.0	ug/L	N/A	N/A	23.4		117		40-135			
Isopropylbenzene	11J1409		20.0	ug/L	N/A	N/A	20.0		100		70-125			
p-Isopropyltoluene	11J1409		20.0	ug/L	N/A	N/A	21.3		106		60-140			

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methylene Chloride	11J1409		20.0	ug/L	N/A	N/A	20.6		103		55-145			
Methyl tert-Butyl Ether	11J1409		20.0	ug/L	N/A	N/A	23.2		116		50-135			
Naphthalene	11J1409		20.0	ug/L	N/A	N/A	18.8		94		40-135			
n-Propylbenzene	11J1409		20.0	ug/L	N/A	N/A	22.0		110		70-135			
Styrene	11J1409		20.0	ug/L	N/A	N/A	21.9		109		70-130			
1,1,1,2-Tetrachloroethane	11J1409		20.0	ug/L	N/A	N/A	22.3		112		65-120			
1,1,2,2-Tetrachloroethane	11J1409		20.0	ug/L	N/A	N/A	22.0		110		65-130			
Tetrachloroethene	11J1409		20.0	ug/L	N/A	N/A	19.3		97		70-135			
Toluene	11J1409		20.0	ug/L	N/A	N/A	22.0		110		70-135			
1,2,3-Trichlorobenzene	11J1409		20.0	ug/L	N/A	N/A	19.1		95		55-130			
1,2,4-Trichlorobenzene	11J1409		20.0	ug/L	N/A	N/A	19.5		97		40-135			
1,1,1-Trichloroethane	11J1409		20.0	ug/L	N/A	N/A	22.8		114		60-125			
1,1,2-Trichloroethane	11J1409		20.0	ug/L	N/A	N/A	22.3		111		75-125			
Trichloroethene	11J1409		20.0	ug/L	N/A	N/A	21.4		107		70-130			
Trichlorofluoromethane	11J1409		20.0	ug/L	N/A	N/A	21.7		108		55-145			
1,2,3-Trichloropropane	11J1409		20.0	ug/L	N/A	N/A	22.2		111		60-150			
1,2,4-Trimethylbenzene	11J1409		20.0	ug/L	N/A	N/A	22.0		110		70-140			
1,3,5-Trimethylbenzene	11J1409		20.0	ug/L	N/A	N/A	21.9		110		70-140			
Vinyl chloride	11J1409		20.0	ug/L	N/A	N/A	20.5		102		45-135			
Xylenes, total	11J1409		60.0	ug/L	N/A	N/A	64.7		108		70-130			
Surrogate: Dibromofluoromethane	*11J1409*			ug/L					*102*		*75-120*			
Surrogate: Toluene-d8	*11J1409*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1409*			ug/L					*97*		*80-120*			

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Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1430-01														
Acetone	11J1320	0.630	20.0	ug/L	N/A	N/A	17.7	15.3	85	73	45-150	15	35	CIN
Acrylonitrile	11J1320	0.140	20.0	ug/L	N/A	N/A	16.8	15.2	83	75	45-145	10	35	
Benzene	11J1320	0.0400	20.0	ug/L	N/A	N/A	18.5	16.8	92	84	50-130	10	20	
Bromobenzene	11J1320	0.120	20.0	ug/L	N/A	N/A	16.9	16.1	84	80	60-135	5	15	CIN
Bromochloromethane	11J1320	<5.00	20.0	ug/L	N/A	N/A	19.4	19.0	97	95	55-145	2	25	
Bromodichloromethane	11J1320	0.0100	20.0	ug/L	N/A	N/A	17.8	16.3	89	82	50-130	9	15	
Bromoform	11J1320	<5.00	20.0	ug/L	N/A	N/A	15.2	13.3	76	66	30-125	14	25	
Bromomethane	11J1320	0.490	20.0	ug/L	N/A	N/A	16.5	16.0	80	77	30-130	3	35	
2-Butanone (MEK)	11J1320	0.210	20.0	ug/L	N/A	N/A	15.8	14.1	78	69	45-140	12	35	
n-Butylbenzene	11J1320	0.390	20.0	ug/L	N/A	N/A	17.7	16.3	87	79	40-135	9	20	
sec-Butylbenzene	11J1320	0.280	20.0	ug/L	N/A	N/A	17.8	16.1	87	79	40-135	10	20	
tert-Butylbenzene	11J1320	0.200	20.0	ug/L	N/A	N/A	17.8	16.0	88	79	40-135	11	20	
Carbon disulfide	11J1320	0.300	20.0	ug/L	N/A	N/A	19.1	17.2	94	85	30-130	11	30	
Carbon Tetrachloride	11J1320	0.0200	20.0	ug/L	N/A	N/A	17.3	15.8	86	79	35-130	9	20	
Chlorobenzene	11J1320	0.100	20.0	ug/L	N/A	N/A	18.2	16.4	90	81	60-130	10	15	
Chlorodibromomethane	11J1320	0.0300	20.0	ug/L	N/A	N/A	17.9	16.3	89	82	35-130	9	20	
Chloroethane	11J1320	<4.00	20.0	ug/L	N/A	N/A	16.0	16.0	80	80	40-135	0	20	
Chloroform	11J1320	0.100	20.0	ug/L	N/A	N/A	18.2	17.4	90	86	55-125	5	15	
Chloromethane	11J1320	0.180	20.0	ug/L	N/A	N/A	14.6	13.8	72	68	25-125	6	25	
2-Chlorotoluene	11J1320	0.180	20.0	ug/L	N/A	N/A	17.5	16.4	87	81	55-140	7	20	
4-Chlorotoluene	11J1320	0.170	20.0	ug/L	N/A	N/A	17.3	15.8	86	78	50-140	9	20	
1,2-Dibromo-3-chloropropane	11J1320	0.810	20.0	ug/L	N/A	N/A	17.2	14.7	82	69	35-130	16	30	
1,2-Dibromoethane (EDB)	11J1320	0.110	20.0	ug/L	N/A	N/A	17.9	17.2	89	85	55-140	4	20	
Dibromomethane	11J1320	0.0300	20.0	ug/L	N/A	N/A	18.4	16.8	92	84	60-135	9	15	
1,2-Dichlorobenzene	11J1320	0.380	20.0	ug/L	N/A	N/A	17.6	16.1	86	79	55-140	9	20	
1,3-Dichlorobenzene	11J1320	0.300	20.0	ug/L	N/A	N/A	17.3	16.2	85	79	55-135	7	15	
1,4-Dichlorobenzene	11J1320	0.290	20.0	ug/L	N/A	N/A	17.4	15.8	85	78	55-140	9	15	CIN
Dichlorodifluoromethane	11J1320	0.0700	20.0	ug/L	N/A	N/A	12.4	10.6	62	53	15-130	15	25	
1,1-Dichloroethane	11J1320	0.880	20.0	ug/L	N/A	N/A	18.8	17.3	90	82	50-130	8	25	
1,2-Dichloroethane	11J1320	0.110	20.0	ug/L	N/A	N/A	18.2	16.9	90	84	55-140	7	15	
1,1-Dichloroethene	11J1320	4.81	20.0	ug/L	N/A	N/A	20.9	17.6	80	64	35-135	17	30	
cis-1,2-Dichloroethene	11J1320	0.120	20.0	ug/L	N/A	N/A	18.9	17.3	94	86	45-135	9	20	
trans-1,2-Dichloroethene	11J1320	0.0900	20.0	ug/L	N/A	N/A	17.6	16.5	88	82	45-145	7	35	
1,2-Dichloropropane	11J1320	<1.00	20.0	ug/L	N/A	N/A	18.3	16.6	92	83	55-130	9	15	
1,3-Dichloropropane	11J1320	0.0800	20.0	ug/L	N/A	N/A	18.6	17.1	92	85	60-135	8	15	
2,2-Dichloropropane	11J1320	<4.00	20.0	ug/L	N/A	N/A	19.6	17.9	98	90	20-120	9	35	
1,1-Dichloropropene	11J1320	<1.00	20.0	ug/L	N/A	N/A	17.0	16.0	85	80	40-140	6	20	
cis-1,3-Dichloropropene	11J1320	0.0400	20.0	ug/L	N/A	N/A	19.0	17.4	95	87	25-120	9	20	
trans-1,3-Dichloropropene	11J1320	0.0200	20.0	ug/L	N/A	N/A	17.2	16.4	86	82	25-120	5	20	
Ethylbenzene	11J1320	0.110	20.0	ug/L	N/A	N/A	17.2	15.9	86	79	45-135	8	20	
Hexachlorobutadiene	11J1320	1.61	20.0	ug/L	N/A	N/A	17.5	16.0	80	72	40-135	9	30	
Hexane	11J1320	0.180	20.0	ug/L	N/A	N/A	17.3	15.4	86	76	25-135	12	35	
Isopropylbenzene	11J1320	0.100	20.0	ug/L	N/A	N/A	15.6	14.2	77	71	45-125	9	15	
p-Isopropyltoluene	11J1320	0.260	20.0	ug/L	N/A	N/A	16.6	16.1	82	79	40-140	3	20	
Methylene Chloride	11J1320	0.0600	20.0	ug/L	N/A	N/A	18.3	16.4	91	82	45-145	11	30	

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1143
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/18/11
Reported: 10/27/11 11:18

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1430-01														
Methyl tert-Butyl Ether	11J1320	0.0800	20.0	ug/L	N/A	N/A	18.8	17.3	94	86	40-135	8	25	
Naphthalene	11J1320	2.67	20.0	ug/L	N/A	N/A	18.2	15.8	77	66	40-135	14	20	
n-Propylbenzene	11J1320	0.190	20.0	ug/L	N/A	N/A	16.8	15.4	83	76	45-140	9	20	
Styrene	11J1320	0.100	20.0	ug/L	N/A	N/A	17.8	16.8	89	83	40-135	6	20	
1,1,1,2-Tetrachloroethane	11J1320	0.0500	20.0	ug/L	N/A	N/A	16.9	16.1	84	80	50-130	5	20	
1,1,2,2-Tetrachloroethane	11J1320	0.250	20.0	ug/L	N/A	N/A	18.0	15.8	89	78	55-140	13	20	
Tetrachloroethene	11J1320	2.96	20.0	ug/L	N/A	N/A	19.0	17.8	80	74	40-135	6	20	
Toluene	11J1320	0.0700	20.0	ug/L	N/A	N/A	18.4	16.9	92	84	45-135	9	20	
1,2,3-Trichlorobenzene	11J1320	2.49	20.0	ug/L	N/A	N/A	18.3	16.7	79	71	50-140	9	25	
1,2,4-Trichlorobenzene	11J1320	1.43	20.0	ug/L	N/A	N/A	18.0	16.1	83	73	40-135	11	25	
1,1,1-Trichloroethane	11J1320	2.40	20.0	ug/L	N/A	N/A	21.0	18.3	93	80	40-125	13	20	
1,1,2-Trichloroethane	11J1320	0.0400	20.0	ug/L	N/A	N/A	18.0	16.2	90	81	60-130	10	15	
Trichloroethene	11J1320	0.210	20.0	ug/L	N/A	N/A	17.4	15.1	86	75	50-130	14	20	
Trichlorofluoromethane	11J1320	0.0400	20.0	ug/L	N/A	N/A	17.4	15.5	87	77	40-145	11	25	
1,2,3-Trichloropropane	11J1320	0.160	20.0	ug/L	N/A	N/A	16.6	15.3	82	76	55-150	8	20	
1,2,4-Trimethylbenzene	11J1320	0.220	20.0	ug/L	N/A	N/A	17.6	16.0	87	79	45-140	9	20	
1,3,5-Trimethylbenzene	11J1320	0.210	20.0	ug/L	N/A	N/A	17.1	16.4	85	81	45-140	4	20	
Vinyl chloride	11J1320	0.0600	20.0	ug/L	N/A	N/A	17.5	16.2	87	81	30-135	8	20	
Xylenes, total	11J1320	0.220	60.0	ug/L	N/A	N/A	52.6	49.2	87	82	40-135	7	20	
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*99*	*99*	*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*100*	*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*100*	*100*	*80-120*			
QC Source Sample: CUJ1148-02														
Acetone	11J1336	<10.0	20.0	ug/L	N/A	N/A	20.2	19.4	101	97	45-150	4	35	
Acrylonitrile	11J1336	<10.0	20.0	ug/L	N/A	N/A	21.6	21.2	108	106	45-145	1	35	
Benzene	11J1336	0.950	20.0	ug/L	N/A	N/A	19.1	18.9	91	90	50-130	1	20	
Bromobenzene	11J1336	0.0200	20.0	ug/L	N/A	N/A	19.7	18.7	98	94	60-135	5	15	
Bromochloromethane	11J1336	<5.00	20.0	ug/L	N/A	N/A	19.2	19.6	96	98	55-145	2	25	
Bromodichloromethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	18.2	17.7	91	88	50-130	3	15	
Bromoform	11J1336	<5.00	20.0	ug/L	N/A	N/A	18.6	18.0	93	90	30-125	3	25	
Bromomethane	11J1336	<4.00	20.0	ug/L	N/A	N/A	10.5	10.6	53	53	30-130	1	35	CIN
2-Butanone (MEK)	11J1336	0.130	20.0	ug/L	N/A	N/A	22.3	22.8	111	113	45-140	2	35	
n-Butylbenzene	11J1336	0.0400	20.0	ug/L	N/A	N/A	17.3	17.5	86	87	40-135	1	20	
sec-Butylbenzene	11J1336	0.0700	20.0	ug/L	N/A	N/A	18.3	18.4	91	92	40-135	1	20	
tert-Butylbenzene	11J1336	0.0400	20.0	ug/L	N/A	N/A	18.5	19.1	92	95	40-135	3	20	
Carbon disulfide	11J1336	0.0700	20.0	ug/L	N/A	N/A	17.9	16.9	89	84	30-130	6	30	
Carbon Tetrachloride	11J1336	<2.00	20.0	ug/L	N/A	N/A	19.3	18.8	97	94	35-130	3	20	
Chlorobenzene	11J1336	1.62	20.0	ug/L	N/A	N/A	20.2	19.6	93	90	60-130	3	15	
Chlorodibromomethane	11J1336	<5.00	20.0	ug/L	N/A	N/A	19.3	19.2	96	96	35-130	0	20	
Chloroethane	11J1336	0.820	20.0	ug/L	N/A	N/A	18.1	17.8	86	85	40-135	1	20	
Chloroform	11J1336	<1.00	20.0	ug/L	N/A	N/A	18.4	17.6	92	88	55-125	4	15	
Chloromethane	11J1336	0.240	20.0	ug/L	N/A	N/A	14.0	13.9	69	68	25-125	1	25	
2-Chlorotoluene	11J1336	0.0100	20.0	ug/L	N/A	N/A	19.4	19.0	97	95	55-140	2	20	
4-Chlorotoluene	11J1336	0.0100	20.0	ug/L	N/A	N/A	19.2	19.0	96	95	50-140	1	20	
1,2-Dibromo-3-chloropropane	11J1336	<10.0	20.0	ug/L	N/A	N/A	20.2	21.9	101	110	35-130	8	30	

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Received: 10/18/11
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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1148-02														
1,2-Dibromoethane (EDB)	11J1336	<10.0	20.0	ug/L	N/A	N/A	20.7	20.2	103	101	55-140	2	20	
Dibromomethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	18.9	18.6	95	93	60-135	2	15	
1,2-Dichlorobenzene	11J1336	<1.00	20.0	ug/L	N/A	N/A	20.0	19.6	100	98	55-140	2	20	
1,3-Dichlorobenzene	11J1336	<1.00	20.0	ug/L	N/A	N/A	18.8	19.0	94	95	55-135	1	15	
1,4-Dichlorobenzene	11J1336	3.83	20.0	ug/L	N/A	N/A	22.4	22.5	93	93	55-140	0	15	
Dichlorodifluoromethane	11J1336	0.390	20.0	ug/L	N/A	N/A	11.9	11.3	58	55	15-130	5	25	
1,1-Dichloroethane	11J1336	0.580	20.0	ug/L	N/A	N/A	18.2	18.0	88	87	50-130	1	25	
1,2-Dichloroethane	11J1336	0.130	20.0	ug/L	N/A	N/A	19.1	19.0	95	94	55-140	1	15	
1,1-Dichloroethene	11J1336	<2.00	20.0	ug/L	N/A	N/A	17.3	16.2	86	81	35-135	6	30	
cis-1,2-Dichloroethene	11J1336	0.370	20.0	ug/L	N/A	N/A	18.4	18.3	90	90	45-135	1	20	
trans-1,2-Dichloroethene	11J1336	<1.00	20.0	ug/L	N/A	N/A	17.9	17.1	89	85	45-145	5	35	
1,2-Dichloropropane	11J1336	<1.00	20.0	ug/L	N/A	N/A	19.3	18.8	97	94	55-130	3	15	
1,3-Dichloropropane	11J1336	<1.00	20.0	ug/L	N/A	N/A	20.6	20.6	103	103	60-135	0	15	
2,2-Dichloropropane	11J1336	0.0300	20.0	ug/L	N/A	N/A	13.6	13.8	68	69	20-120	2	35	
1,1-Dichloropropene	11J1336	<1.00	20.0	ug/L	N/A	N/A	18.0	17.2	90	86	40-140	4	20	
cis-1,3-Dichloropropene	11J1336	<5.00	20.0	ug/L	N/A	N/A	18.4	18.1	92	90	25-120	2	20	
trans-1,3-Dichloropropene	11J1336	<5.00	20.0	ug/L	N/A	N/A	19.2	18.4	96	92	25-120	4	20	
Ethylbenzene	11J1336	0.0200	20.0	ug/L	N/A	N/A	19.2	18.1	96	90	45-135	6	20	
Hexachlorobutadiene	11J1336	<5.00	20.0	ug/L	N/A	N/A	17.1	16.3	86	82	40-135	5	30	
Hexane	11J1336	<1.00	20.0	ug/L	N/A	N/A	13.6	14.1	68	71	25-135	4	35	
Isopropylbenzene	11J1336	0.0500	20.0	ug/L	N/A	N/A	17.0	17.0	85	84	45-125	0	15	
p-Isopropyltoluene	11J1336	0.0200	20.0	ug/L	N/A	N/A	18.0	18.1	90	90	40-140	1	20	
Methylene Chloride	11J1336	0.0900	20.0	ug/L	N/A	N/A	17.8	16.9	88	84	45-145	5	30	
Methyl tert-Butyl Ether	11J1336	1.00	20.0	ug/L	N/A	N/A	21.3	21.2	102	101	40-135	0	25	
Naphthalene	11J1336	0.0500	20.0	ug/L	N/A	N/A	20.1	21.5	100	107	40-135	7	20	
n-Propylbenzene	11J1336	0.0100	20.0	ug/L	N/A	N/A	18.6	18.4	93	92	45-140	1	20	
Styrene	11J1336	0.0100	20.0	ug/L	N/A	N/A	19.7	18.7	98	94	40-135	5	20	
1,1,1,2-Tetrachloroethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	20.8	20.1	104	101	50-130	3	20	
1,1,2,2-Tetrachloroethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	22.2	22.0	111	110	55-140	1	20	
Tetrachloroethene	11J1336	0.390	20.0	ug/L	N/A	N/A	16.9	16.1	82	78	40-135	5	20	
Toluene	11J1336	0.0900	20.0	ug/L	N/A	N/A	18.9	18.3	94	91	45-135	3	20	
1,2,3-Trichlorobenzene	11J1336	<5.00	20.0	ug/L	N/A	N/A	19.5	20.1	98	100	50-140	3	25	
1,2,4-Trichlorobenzene	11J1336	<5.00	20.0	ug/L	N/A	N/A	18.4	19.0	92	95	40-135	3	25	
1,1,1-Trichloroethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	19.0	18.5	95	92	40-125	3	20	
1,1,2-Trichloroethane	11J1336	<1.00	20.0	ug/L	N/A	N/A	20.8	20.5	104	103	60-130	1	15	
Trichloroethene	11J1336	0.140	20.0	ug/L	N/A	N/A	17.7	17.5	88	87	50-130	1	20	
Trichlorofluoromethane	11J1336	<4.00	20.0	ug/L	N/A	N/A	18.3	17.6	92	88	40-145	4	25	
1,2,3-Trichloropropane	11J1336	0.0400	20.0	ug/L	N/A	N/A	21.8	21.2	109	106	55-150	3	20	
1,2,4-Trimethylbenzene	11J1336	0.0600	20.0	ug/L	N/A	N/A	19.1	19.3	95	96	45-140	1	20	
1,3,5-Trimethylbenzene	11J1336	0.0700	20.0	ug/L	N/A	N/A	18.8	18.9	94	94	45-140	0	20	
Vinyl chloride	11J1336	0.320	20.0	ug/L	N/A	N/A	16.5	16.3	81	80	30-135	1	20	
Xylenes, total	11J1336	<3.00	60.0	ug/L	N/A	N/A	56.6	55.2	94	92	40-135	2	20	
Surrogate: Dibromofluoromethane	*11J1336*			ug/L					*102*	*103*	*75-120*			
Surrogate: Toluene-d8	*11J1336*			ug/L					*101*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1336*			ug/L					*99*	*99*	*80-120*			

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF 870 40th Avenue Bettendorf, IA 52722 John Brimeyer	Work Order: CUJ1143 Project: Chamberlain - Waterloo, IA Project Number: 07107020	Received: 10/18/11 Reported: 10/27/11 11:18	

CERTIFICATION SUMMARY

TestAmerica Cedar Falls

Method	Matrix	Nelac	Iowa
SW 8260B	Water - NonPotable	X	X
SW	Water - NonPotable		

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

DATA QUALIFIERS AND DEFINITIONS

CIN The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.

ADDITIONAL COMMENTS

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Terracon Bettendorf
Client #: _____
Address: 2640 12th SW
City/State/Zip Code: Cedar Rapids IA 52404
Project Manager: John Brimeyer
Email Address: jfbrimeyer@terracon.com
Telephone Number: _____
Fax: _____
Sampler Name: (Print Name) Holly Moriarty
Sampler Signature: Holly Moriarty

Project Name: Chamberlain
Project #: 07107020
Site/Location ID: Waterloo
State: IA
Report To: John Brimeyer
Invoice To: _____
Quote #: _____
PO#: _____

TAT
☑ Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N
Email Results: Y N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify)
Analyze For: VOCs 8260

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	VOCs 8260	REMARKS
OSMW-4	10/18/11	8:40			GW								X	
OSMW-8		9:40												
OSMW-3		10:18												
Dup-1		—												
MW-10		10:56												
OSMW-14		11:28												
OSMW-13		12:40												
OSMW-11		1315												
OSMW-10		1402												
Trip Blank					W								X	

Special Instructions:

Relinquished By: Holly Moriarty	Date: 10/18/11	Time: 1745	Received By:	Date: 10/18/11	Time: 1745
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

US EPA ARCHIVE DOCUMENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Terracon - Bettendorf
Client #: _____
Address: 2640 12th St SW
City/State/Zip Code: Cedar Rapids IA 52404
Project Manager: John Brimeyer
Email Address: jfbrimeyer@terracon.com
Telephone Number: _____
Fax: _____
Sampler Name: (Print Name) Holly Moriarty
Sampler Signature: Holly

Project Name: Chamberlain
Project #: 07107020
Site/Location ID: Waterloo
State: IA
Report To: John Brimeyer
Invoice To: _____
Quote #: _____
PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N
Email Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other)	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: VOCs 8260									REMARKS
MW-12	10/18/11	1505			GW								✓									
MW-16	10/18/11	1720			GW								✓									
* Dup-2	10/18	—			GW								✓									

Special Instructions:

LABORATORY COMMENTS:
Per JL Brimeyer
Dup-2 [illegible] 10/18/11

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Holly	10/18/11	1745		10/18/11	1745
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Terracon Project: _____

City: Cedar Rapids Ia

Date: 10/18/11 Receiver's Initials: JMH Time (Delivered): 1745

Temperature Record:

Cooler ID# (If Applicable)
Terracon

5.4 °C / On Ice

Thermometer:

- [ ] IR - 111531565 'D'
- [ ] IR - 111531506 'E'
- [ ] IR - 61854108 'Front'
- [x] 101681126

Courier:

- [ ] UPS
- [ ] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [x] Client
- [ ] Other

- [ ] Temp Blank
- [ ] Temperature out of compliance

Custody seals present?
- [ ] Yes

Custody seals intact?
- [ ] Yes
- [ ] No

- [ ] Non-Conformance report started

Exceptions Noted

- [ ] Sample(s) not received in a cooler.
- [ ] Samples(s) received same day of sampling.
- [ ] Evidence of a chilling process
- [x] No Temp. Blank. Inside temperature of cooler recorded.
- [ ] Temperature not taken:

pwgewds

*Refer to SOP CF-SS-01 for Temperature Criteria

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

October 27, 2011

Client:
TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722

Attn: John Brimeyer

Work Order: CUJ1223
Project Name: Chamberlain - Waterloo, IA
Project Number: 07107020

Date Received: 10/19/11

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MW-13	CUJ1223-01	10/19/11 09:15
MW-14	CUJ1223-02	10/19/11 09:39
MW-9	CUJ1223-03	10/19/11 10:13
MW-5	CUJ1223-04	10/19/11 10:58
MW-2	CUJ1223-05	10/19/11 12:09
MW-3	CUJ1223-06	10/19/11 12:33
MW-7	CUJ1223-07	10/19/11 13:18
MW-6	CUJ1223-08	10/19/11 14:30
Trip Blank	CUJ1223-09	10/19/11

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By:
Angela Muehling

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-01 (MW-13 - Ground Water)					**Sampled: 10/19/11 09:15**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 03:08	sjn	11J1326	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**1.96**		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-01 (MW-13 - Ground Water) - cont.					**Sampled: 10/19/11 09:15**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	**1.72**		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Trichloroethene	**7.87**		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 03:08	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*97 %*								
Surr: Toluene-d8 (80-120%)	*97 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1223-02 (MW-14 - Ground Water)					**Sampled: 10/19/11 09:39**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 03:30	sjn	11J1326	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Sample ID: CUJ1223-02 (MW-14 - Ground Water) - cont. Sampled: 10/19/11 09:39 Recvd: 10/19/11 15:20

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**4.03**		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Tetrachloroethene	**2.13**		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	**2.20**		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Trichloroethene	**124**		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-02 (MW-14 - Ground Water) - cont.					**Sampled: 10/19/11 09:39**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 03:30	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*100 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1223-03 (MW-9 - Ground Water)					**Sampled: 10/19/11 10:13**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<100	CIN	ug/L	100	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Acrylonitrile	<100		ug/L	100	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Benzene	<5.00		ug/L	5.00	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Bromobenzene	<10.0	CIN	ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Bromochloromethane	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Bromodichloromethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Bromoform	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Bromomethane	<40.0		ug/L	40.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<100		ug/L	100	10	10/26/11 02:46	sjn	11J1326	SW 8260B
n-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
sec-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
tert-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Carbon disulfide	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<20.0		ug/L	20.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Chlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Chlorodibromomethane	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Chloroethane	<40.0		ug/L	40.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Chloroform	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Chloromethane	<30.0		ug/L	30.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
2-Chlorotoluene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
4-Chlorotoluene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<100		ug/L	100	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<100		ug/L	100	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Dibromomethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<10.0	CIN	ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<30.0		ug/L	30.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-03 (MW-9 - Ground Water) - cont.					**Sampled: 10/19/11 10:13**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<20.0		ug/L	20.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**335**		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<40.0		ug/L	40.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Ethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Hexane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Isopropylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
p-Isopropyltoluene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Methylene Chloride	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Naphthalene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
n-Propylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Styrene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Tetrachloroethene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Toluene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<50.0		ug/L	50.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Trichloroethene	**794**		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Trichlorofluoromethane	<40.0		ug/L	40.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<40.0		ug/L	40.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Vinyl chloride	<10.0		ug/L	10.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Xylenes, total	<30.0		ug/L	30.0	10	10/26/11 02:46	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*100 %*								
Surr: Toluene-d8 (80-120%)	*99 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-04 (MW-5 - Ground Water)					**Sampled: 10/19/11 10:58**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds									
Acetone	<100	CIN	ug/L	100	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Acrylonitrile	<100		ug/L	100	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Benzene	<5.00		ug/L	5.00	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Bromobenzene	<10.0	CIN	ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Bromochloromethane	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Bromodichloromethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Bromoform	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Bromomethane	<40.0		ug/L	40.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<100		ug/L	100	10	10/26/11 02:23	sjn	11J1326	SW 8260B
n-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
sec-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
tert-Butylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Carbon disulfide	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<20.0		ug/L	20.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Chlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Chlorodibromomethane	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Chloroethane	<40.0		ug/L	40.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Chloroform	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Chloromethane	<30.0		ug/L	30.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
2-Chlorotoluene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
4-Chlorotoluene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<100		ug/L	100	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<100		ug/L	100	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Dibromomethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<10.0	CIN	ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<30.0		ug/L	30.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<20.0		ug/L	20.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**194**		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<40.0		ug/L	40.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Ethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Hexane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Isopropylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-04 (MW-5 - Ground Water) - cont.					**Sampled: 10/19/11 10:58**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Methylene Chloride	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Naphthalene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
n-Propylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Styrene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Tetrachloroethene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Toluene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<50.0		ug/L	50.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Trichloroethene	**772**		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Trichlorofluoromethane	<40.0		ug/L	40.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<40.0		ug/L	40.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Vinyl chloride	<10.0		ug/L	10.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Xylenes, total	<30.0		ug/L	30.0	10	10/26/11 02:23	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*102 %*								
Surr: Toluene-d8 (80-120%)	*97 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*96 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW
Sample ID: CUJ1223-05 (MW-2 - Ground Water)					**Sampled: 10/19/11 12:09**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 22:18	sjn	11J1326	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Sample ID: CUJ1223-05 (MW-2 - Ground Water) - cont. **Sampled: 10/19/11 12:09** **Recvd: 10/19/11 15:20**

Volatile Organic Compounds - cont.

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Trichloroethene	**2.86**		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B

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704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-05 (MW-2 - Ground Water) - cont.					**Sampled: 10/19/11 12:09**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 22:18	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*97 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*98 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1223-06 (MW-3 - Ground Water)					**Sampled: 10/19/11 12:33**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 21:56	sjn	11J1326	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Chloroform	**1.33**		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-06 (MW-3 - Ground Water) - cont.					**Sampled: 10/19/11 12:33**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Tetrachloroethene	**1.03**		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	**20.1**		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Trichloroethene	**41.6**		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 21:56	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*102 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-07 (MW-7 - Ground Water)					**Sampled: 10/19/11 13:18**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/26/11 03:53	sjn	11J1326	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1-Dichloroethane	**1.30**		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**16.3**		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-07 (MW-7 - Ground Water) - cont.					**Sampled: 10/19/11 13:18**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds - cont.									
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Tetrachloroethene	**1.71**		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	**2.74**		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Trichloroethene	**14.5**		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/26/11 03:53	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*95 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW
Sample ID: CUJ1223-08 (MW-6 - Ground Water)					**Sampled: 10/19/11 14:30**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds									
Acetone	<50.0	CIN	ug/L	50.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Benzene	<2.50		ug/L	2.50	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Bromobenzene	<5.00	CIN	ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Bromochloromethane	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Bromodichloromethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Bromoform	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Bromomethane	<20.0		ug/L	20.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
2-Butanone (MEK)	<50.0		ug/L	50.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
n-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
sec-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
tert-Butylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Carbon disulfide	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Carbon Tetrachloride	<10.0		ug/L	10.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Chlorobenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B

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TERRACON - BETTENDORF
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Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-08 (MW-6 - Ground Water) - cont.					**Sampled: 10/19/11 14:30**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
Chlorodibromomethane	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Chloroethane	<20.0		ug/L	20.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Chloroform	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Chloromethane	<15.0		ug/L	15.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
2-Chlorotoluene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
4-Chlorotoluene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2-Dibromo-3-chloropropane	<50.0		ug/L	50.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2-Dibromoethane (EDB)	<50.0		ug/L	50.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Dibromomethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2-Dichlorobenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,3-Dichlorobenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,4-Dichlorobenzene	<5.00	CIN	ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Dichlorodifluoromethane	<15.0		ug/L	15.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1-Dichloroethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2-Dichloroethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1-Dichloroethene	<10.0		ug/L	10.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
cis-1,2-Dichloroethene	**588**		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
trans-1,2-Dichloroethene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2-Dichloropropane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,3-Dichloropropane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
2,2-Dichloropropane	<20.0		ug/L	20.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1-Dichloropropene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
cis-1,3-Dichloropropene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
trans-1,3-Dichloropropene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Ethylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Hexachlorobutadiene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Hexane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Isopropylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
p-Isopropyltoluene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Methylene Chloride	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Methyl tert-Butyl Ether	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Naphthalene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
n-Propylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Styrene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1,1,2-Tetrachloroethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1,2,2-Tetrachloroethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Tetrachloroethene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Toluene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2,3-Trichlorobenzene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2,4-Trichlorobenzene	<25.0		ug/L	25.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1,1-Trichloroethane	**9.20**		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,1,2-Trichloroethane	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Trichloroethene	**596**		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-08 (MW-6 - Ground Water) - cont.					**Sampled: 10/19/11 14:30**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds - cont.									
Trichlorofluoromethane	<20.0		ug/L	20.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2,3-Trichloropropane	<20.0		ug/L	20.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,2,4-Trimethylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
1,3,5-Trimethylbenzene	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Vinyl chloride	<5.00		ug/L	5.00	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Xylenes, total	<15.0		ug/L	15.0	5	10/26/11 02:01	sjn	11J1326	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*98 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/25/11 16:42	eee	11J1305	SW
Sample ID: CUJ1223-09 (Trip Blank - Water)					**Sampled: 10/19/11**		**Recvd: 10/19/11 15:20**		
Volatile Organic Compounds									
Acetone	<10.0	CIN	ug/L	10.0	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Acrylonitrile	<10.0		ug/L	10.0	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Benzene	<0.500		ug/L	0.500	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Bromobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Bromochloromethane	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Bromodichloromethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Bromoform	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Bromomethane	<4.00		ug/L	4.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
2-Butanone (MEK)	<10.0		ug/L	10.0	1	10/25/11 13:43	sjn	11J1320	SW 8260B
n-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
sec-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
tert-Butylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Carbon Tetrachloride	<2.00		ug/L	2.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Chlorodibromomethane	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Chloroethane	<4.00		ug/L	4.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Chloromethane	<3.00		ug/L	3.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
2-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
4-Chlorotoluene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2-Dibromo-3-chloropropane	<10.0		ug/L	10.0	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2-Dibromoethane (EDB)	<10.0		ug/L	10.0	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,3-Dichlorobenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,4-Dichlorobenzene	<1.00	CIN	ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Dichlorodifluoromethane	<3.00		ug/L	3.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Quan. Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: CUJ1223-09 (Trip Blank - Water) - cont.					**Sampled: 10/19/11**			**Recvd: 10/19/11 15:20**	
Volatile Organic Compounds - cont.									
1,1-Dichloroethene	<2.00		ug/L	2.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,3-Dichloropropane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
2,2-Dichloropropane	<4.00		ug/L	4.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1-Dichloropropene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
cis-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
trans-1,3-Dichloropropene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Hexane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Isopropylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
p-Isopropyltoluene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Methylene Chloride	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Methyl tert-Butyl Ether	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Naphthalene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
n-Propylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2,3-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2,4-Trichlorobenzene	<5.00		ug/L	5.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Trichlorofluoromethane	<4.00		ug/L	4.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2,3-Trichloropropane	<4.00		ug/L	4.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,2,4-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
1,3,5-Trimethylbenzene	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Xylenes, total	<3.00		ug/L	3.00	1	10/25/11 13:43	sjn	11J1320	SW 8260B
Surr: Dibromofluoromethane (75-120%)	*96 %*								
Surr: Toluene-d8 (80-120%)	*98 %*								
Surr: 4-Bromofluorobenzene (75-110%)	*99 %*								
VOC Preservation Check									
pH	<2.00		units	2.00	1	10/26/11 16:29	eee	11J1377	SW

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1320			ug/L	N/A	10.0	<10.0							CIN
Acrylonitrile	11J1320			ug/L	N/A	10.0	<10.0							
Benzene	11J1320			ug/L	N/A	0.500	<0.500							
Bromobenzene	11J1320			ug/L	N/A	1.00	<1.00							CIN
Bromochloromethane	11J1320			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1320			ug/L	N/A	1.00	<1.00							
Bromoform	11J1320			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1320			ug/L	N/A	4.00	<4.00							
2-Butanone (MEK)	11J1320			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1320			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1320			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1320			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1320			ug/L	N/A	4.00	<4.00							
Chloroform	11J1320			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1320			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1320			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1320			ug/L	N/A	10.0	<10.0							
1,2-Dibromoethane (EDB)	11J1320			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1320			ug/L	N/A	1.00	<1.00							CIN
Dichlorodifluoromethane	11J1320			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1320			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1320			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1320			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1320			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1320			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1320			ug/L	N/A	5.00	<5.00							
Hexane	11J1320			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1320			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J1320			ug/L	N/A	5.00	<5.00							

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
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Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J1320			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1320			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Styrene	11J1320			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1320			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1320			ug/L	N/A	1.00	<1.00							
Toluene	11J1320			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1320			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1320			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1320			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1320			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1320			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1320			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1320			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1320			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1320			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*98*		*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*97*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*98*		*75-110*			
Acetone	11J1326			ug/L	N/A	10.0	<10.0							CIN
Acrylonitrile	11J1326			ug/L	N/A	10.0	<10.0							
Benzene	11J1326			ug/L	N/A	0.500	<0.500							CIN
Bromobenzene	11J1326			ug/L	N/A	1.00	<1.00							
Bromochloromethane	11J1326			ug/L	N/A	5.00	<5.00							
Bromodichloromethane	11J1326			ug/L	N/A	1.00	<1.00							
Bromoform	11J1326			ug/L	N/A	5.00	<5.00							
Bromomethane	11J1326			ug/L	N/A	4.00	<4.00							
2-Butanone (MEK)	11J1326			ug/L	N/A	10.0	<10.0							
n-Butylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
tert-Butylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
Carbon disulfide	11J1326			ug/L	N/A	1.00	<1.00							
Carbon Tetrachloride	11J1326			ug/L	N/A	2.00	<2.00							
Chlorobenzene	11J1326			ug/L	N/A	1.00	<1.00							
Chlorodibromomethane	11J1326			ug/L	N/A	5.00	<5.00							
Chloroethane	11J1326			ug/L	N/A	4.00	<4.00							
Chloroform	11J1326			ug/L	N/A	1.00	<1.00							
Chloromethane	11J1326			ug/L	N/A	3.00	<3.00							
2-Chlorotoluene	11J1326			ug/L	N/A	1.00	<1.00							
4-Chlorotoluene	11J1326			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	11J1326			ug/L	N/A	10.0	<10.0							

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1326			ug/L	N/A	10.0	<10.0							
Dibromomethane	11J1326			ug/L	N/A	1.00	<1.00							
1,2-Dichlorobenzene	11J1326			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	11J1326			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	11J1326			ug/L	N/A	1.00	<1.00							CIN
Dichlorodifluoromethane	11J1326			ug/L	N/A	3.00	<3.00							
1,1-Dichloroethane	11J1326			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	11J1326			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	11J1326			ug/L	N/A	2.00	<2.00							
cis-1,2-Dichloroethene	11J1326			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	11J1326			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	11J1326			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	11J1326			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	11J1326			ug/L	N/A	4.00	<4.00							
1,1-Dichloropropene	11J1326			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	11J1326			ug/L	N/A	5.00	<5.00							
trans-1,3-Dichloropropene	11J1326			ug/L	N/A	5.00	<5.00							
Ethylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	11J1326			ug/L	N/A	5.00	<5.00							
Hexane	11J1326			ug/L	N/A	1.00	<1.00							
Isopropylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	11J1326			ug/L	N/A	1.00	<1.00							
Methylene Chloride	11J1326			ug/L	N/A	5.00	<5.00							
Methyl tert-Butyl Ether	11J1326			ug/L	N/A	1.00	<1.00							
Naphthalene	11J1326			ug/L	N/A	5.00	<5.00							
n-Propylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
Styrene	11J1326			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	11J1326			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	11J1326			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	11J1326			ug/L	N/A	1.00	<1.00							
Toluene	11J1326			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	11J1326			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	11J1326			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	11J1326			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	11J1326			ug/L	N/A	1.00	<1.00							
Trichloroethene	11J1326			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	11J1326			ug/L	N/A	4.00	<4.00							
1,2,3-Trichloropropane	11J1326			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	11J1326			ug/L	N/A	1.00	<1.00							
Vinyl chloride	11J1326			ug/L	N/A	1.00	<1.00							
Xylenes, total	11J1326			ug/L	N/A	3.00	<3.00							
Surrogate: Dibromofluoromethane	*11J1326*			ug/L					*98*		*75-120*			
Surrogate: Toluene-d8	*11J1326*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1326*			ug/L					*102*		*75-110*			

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704 Enterprise Drive Cedar Falls, IA 50613 * 800-750-2401 * Fax 319-277-2425

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Acetone	11J1320		20.0	ug/L	N/A	N/A	21.3		106		60-150			CIN
Acrylonitrile	11J1320		20.0	ug/L	N/A	N/A	15.7		78		50-145			
Benzene	11J1320		20.0	ug/L	N/A	N/A	19.2		96		70-130			
Bromobenzene	11J1320		20.0	ug/L	N/A	N/A	17.5		87		75-130			CIN
Bromochloromethane	11J1320		20.0	ug/L	N/A	N/A	19.2		96		65-145			
Bromodichloromethane	11J1320		20.0	ug/L	N/A	N/A	18.3		92		60-130			
Bromoform	11J1320		20.0	ug/L	N/A	N/A	14.2		71		30-125			
Bromomethane	11J1320		20.0	ug/L	N/A	N/A	17.9		90		35-130			
2-Butanone (MEK)	11J1320		20.0	ug/L	N/A	N/A	16.6		83		55-140			
n-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	21.1		106		55-135			
sec-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	21.8		109		65-135			
tert-Butylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.8		104		60-135			
Carbon disulfide	11J1320		20.0	ug/L	N/A	N/A	20.3		102		40-130			
Carbon Tetrachloride	11J1320		20.0	ug/L	N/A	N/A	19.9		99		55-130			
Chlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.9		95		75-125			
Chlorodibromomethane	11J1320		20.0	ug/L	N/A	N/A	17.5		88		45-125			
Chloroethane	11J1320		20.0	ug/L	N/A	N/A	17.9		90		55-135			
Chloroform	11J1320		20.0	ug/L	N/A	N/A	18.6		93		70-125			
Chloromethane	11J1320		20.0	ug/L	N/A	N/A	15.8		79		30-125			
2-Chlorotoluene	11J1320		20.0	ug/L	N/A	N/A	18.2		91		75-135			
4-Chlorotoluene	11J1320		20.0	ug/L	N/A	N/A	18.9		94		70-140			
1,2-Dibromo-3-chloropropane	11J1320		20.0	ug/L	N/A	N/A	13.4		67		35-130			
1,2-Dibromoethane (EDB)	11J1320		20.0	ug/L	N/A	N/A	18.2		91		70-135			
Dibromomethane	11J1320		20.0	ug/L	N/A	N/A	18.8		94		75-130			
1,2-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.0		90		65-135			
1,3-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-130			
1,4-Dichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	18.4		92		60-140			CIN
Dichlorodifluoromethane	11J1320		20.0	ug/L	N/A	N/A	13.4		67		35-130			
1,1-Dichloroethane	11J1320		20.0	ug/L	N/A	N/A	18.9		94		60-130			
1,2-Dichloroethane	11J1320		20.0	ug/L	N/A	N/A	18.3		92		65-140			
1,1-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.5		93		60-135			
cis-1,2-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	20.0		100		70-135			
trans-1,2-Dichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.7		93		60-145			
1,2-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	18.7		94		65-130			
1,3-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	18.6		93		75-125			
2,2-Dichloropropane	11J1320		20.0	ug/L	N/A	N/A	21.1		105		25-120			
1,1-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	19.4		97		60-140			
cis-1,3-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		30-120			
trans-1,3-Dichloropropene	11J1320		20.0	ug/L	N/A	N/A	17.1		86		35-120			
Ethylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.0		100		70-130			
Hexachlorobutadiene	11J1320		20.0	ug/L	N/A	N/A	19.5		97		60-135			
Hexane	11J1320		20.0	ug/L	N/A	N/A	22.5		112		40-135			
Isopropylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-125			
p-Isopropyltoluene	11J1320		20.0	ug/L	N/A	N/A	21.0		105		60-140			
Methylene Chloride	11J1320		20.0	ug/L	N/A	N/A	17.7		88		55-145			

US EPA ARCHIVE DOCUMENT

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
Methyl tert-Butyl Ether	11J1320		20.0	ug/L	N/A	N/A	18.5		93		50-135			
Naphthalene	11J1320		20.0	ug/L	N/A	N/A	14.5		72		40-135			
n-Propylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.0		95		70-135			
Styrene	11J1320		20.0	ug/L	N/A	N/A	19.5		98		70-130			
1,1,1,2-Tetrachloroethane	11J1320		20.0	ug/L	N/A	N/A	18.2		91		65-120			
1,1,2,2-Tetrachloroethane	11J1320		20.0	ug/L	N/A	N/A	15.2		76		65-130			
Tetrachloroethene	11J1320		20.0	ug/L	N/A	N/A	20.4		102		70-135			
Toluene	11J1320		20.0	ug/L	N/A	N/A	19.9		99		70-135			
1,2,3-Trichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	17.1		86		55-130			
1,2,4-Trichlorobenzene	11J1320		20.0	ug/L	N/A	N/A	16.7		84		40-135			
1,1,1-Trichloroethane	11J1320		20.0	ug/L	N/A	N/A	21.0		105		60-125			
1,1,2-Trichloroethane	11J1320		20.0	ug/L	N/A	N/A	17.6		88		75-125			
Trichloroethene	11J1320		20.0	ug/L	N/A	N/A	18.7		94		70-130			
Trichlorofluoromethane	11J1320		20.0	ug/L	N/A	N/A	21.0		105		55-145			
1,2,3-Trichloropropane	11J1320		20.0	ug/L	N/A	N/A	14.4		72		60-150			
1,2,4-Trimethylbenzene	11J1320		20.0	ug/L	N/A	N/A	19.5		98		70-140			
1,3,5-Trimethylbenzene	11J1320		20.0	ug/L	N/A	N/A	20.6		103		70-140			
Vinyl chloride	11J1320		20.0	ug/L	N/A	N/A	18.9		94		45-135			
Xylenes, total	11J1320		60.0	ug/L	N/A	N/A	59.6		99		70-130			
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*99*		*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*98*		*80-120*			
Acetone	11J1326		20.0	ug/L	N/A	N/A	22.8		114		60-150			CIN
Acrylonitrile	11J1326		20.0	ug/L	N/A	N/A	17.6		88		50-145			
Benzene	11J1326		20.0	ug/L	N/A	N/A	20.1		101		70-130			
Bromobenzene	11J1326		20.0	ug/L	N/A	N/A	18.4		92		75-130			CIN
Bromochloromethane	11J1326		20.0	ug/L	N/A	N/A	20.2		101		65-145			
Bromodichloromethane	11J1326		20.0	ug/L	N/A	N/A	17.6		88		60-130			
Bromoform	11J1326		20.0	ug/L	N/A	N/A	15.3		77		30-125			
Bromomethane	11J1326		20.0	ug/L	N/A	N/A	12.6		63		35-130			
2-Butanone (MEK)	11J1326		20.0	ug/L	N/A	N/A	17.5		87		55-140			
n-Butylbenzene	11J1326		20.0	ug/L	N/A	N/A	19.5		97		55-135			
sec-Butylbenzene	11J1326		20.0	ug/L	N/A	N/A	21.2		106		65-135			
tert-Butylbenzene	11J1326		20.0	ug/L	N/A	N/A	20.9		105		60-135			
Carbon disulfide	11J1326		20.0	ug/L	N/A	N/A	21.8		109		40-130			
Carbon Tetrachloride	11J1326		20.0	ug/L	N/A	N/A	20.8		104		55-130			
Chlorobenzene	11J1326		20.0	ug/L	N/A	N/A	19.5		98		75-125			
Chlorodibromomethane	11J1326		20.0	ug/L	N/A	N/A	18.1		91		45-125			
Chloroethane	11J1326		20.0	ug/L	N/A	N/A	20.2		101		55-135			
Chloroform	11J1326		20.0	ug/L	N/A	N/A	19.0		95		70-125			
Chloromethane	11J1326		20.0	ug/L	N/A	N/A	15.3		77		30-125			
2-Chlorotoluene	11J1326		20.0	ug/L	N/A	N/A	19.6		98		75-135			
4-Chlorotoluene	11J1326		20.0	ug/L	N/A	N/A	18.8		94		70-140			
1,2-Dibromo-3-chloropropane	11J1326		20.0	ug/L	N/A	N/A	14.9		74		35-130			

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LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
1,2-Dibromoethane (EDB)	11J1326		20.0	ug/L	N/A	N/A	17.9		90		70-135			
Dibromomethane	11J1326		20.0	ug/L	N/A	N/A	18.3		92		75-130			
1,2-Dichlorobenzene	11J1326		20.0	ug/L	N/A	N/A	17.8		89		65-135			
1,3-Dichlorobenzene	11J1326		20.0	ug/L	N/A	N/A	18.5		93		70-130			
1,4-Dichlorobenzene	11J1326		20.0	ug/L	N/A	N/A	18.2		91		60-140			CIN
Dichlorodifluoromethane	11J1326		20.0	ug/L	N/A	N/A	14.1		70		35-130			
1,1-Dichloroethane	11J1326		20.0	ug/L	N/A	N/A	20.4		102		60-130			
1,2-Dichloroethane	11J1326		20.0	ug/L	N/A	N/A	18.8		94		65-140			
1,1-Dichloroethene	11J1326		20.0	ug/L	N/A	N/A	19.2		96		60-135			
cis-1,2-Dichloroethene	11J1326		20.0	ug/L	N/A	N/A	19.5		97		70-135			
trans-1,2-Dichloroethene	11J1326		20.0	ug/L	N/A	N/A	19.9		99		60-145			
1,2-Dichloropropane	11J1326		20.0	ug/L	N/A	N/A	19.5		98		65-130			
1,3-Dichloropropane	11J1326		20.0	ug/L	N/A	N/A	18.8		94		75-125			
2,2-Dichloropropane	11J1326		20.0	ug/L	N/A	N/A	19.7		99		25-120			
1,1-Dichloropropene	11J1326		20.0	ug/L	N/A	N/A	20.5		102		60-140			
cis-1,3-Dichloropropene	11J1326		20.0	ug/L	N/A	N/A	18.4		92		30-120			
trans-1,3-Dichloropropene	11J1326		20.0	ug/L	N/A	N/A	16.8		84		35-120			
Ethylbenzene	11J1326		20.0	ug/L	N/A	N/A	19.8		99		70-130			
Hexachlorobutadiene	11J1326		20.0	ug/L	N/A	N/A	19.1		96		60-135			
Hexane	11J1326		20.0	ug/L	N/A	N/A	19.3		96		40-135			
Isopropylbenzene	11J1326		20.0	ug/L	N/A	N/A	19.1		95		70-125			
p-Isopropyltoluene	11J1326		20.0	ug/L	N/A	N/A	20.0		100		60-140			
Methylene Chloride	11J1326		20.0	ug/L	N/A	N/A	18.7		93		55-145			
Methyl tert-Butyl Ether	11J1326		20.0	ug/L	N/A	N/A	19.4		97		50-135			
Naphthalene	11J1326		20.0	ug/L	N/A	N/A	16.0		80		40-135			
n-Propylbenzene	11J1326		20.0	ug/L	N/A	N/A	20.1		100		70-135			
Styrene	11J1326		20.0	ug/L	N/A	N/A	19.4		97		70-130			
1,1,1,2-Tetrachloroethane	11J1326		20.0	ug/L	N/A	N/A	18.8		94		65-120			
1,1,2,2-Tetrachloroethane	11J1326		20.0	ug/L	N/A	N/A	17.9		90		65-130			
Tetrachloroethene	11J1326		20.0	ug/L	N/A	N/A	20.6		103		70-135			
Toluene	11J1326		20.0	ug/L	N/A	N/A	20.2		101		70-135			
1,2,3-Trichlorobenzene	11J1326		20.0	ug/L	N/A	N/A	17.5		88		55-130			
1,2,4-Trichlorobenzene	11J1326		20.0	ug/L	N/A	N/A	16.8		84		40-135			
1,1,1-Trichloroethane	11J1326		20.0	ug/L	N/A	N/A	22.0		110		60-125			
1,1,2-Trichloroethane	11J1326		20.0	ug/L	N/A	N/A	17.7		89		75-125			
Trichloroethene	11J1326		20.0	ug/L	N/A	N/A	20.1		100		70-130			
Trichlorofluoromethane	11J1326		20.0	ug/L	N/A	N/A	21.3		107		55-145			
1,2,3-Trichloropropane	11J1326		20.0	ug/L	N/A	N/A	17.6		88		60-150			
1,2,4-Trimethylbenzene	11J1326		20.0	ug/L	N/A	N/A	19.5		98		70-140			
1,3,5-Trimethylbenzene	11J1326		20.0	ug/L	N/A	N/A	20.4		102		70-140			
Vinyl chloride	11J1326		20.0	ug/L	N/A	N/A	20.5		102		45-135			
Xylenes, total	11J1326		60.0	ug/L	N/A	N/A	59.8		100		70-130			
Surrogate: Dibromofluoromethane	*11J1326*			ug/L					*102*		*75-120*			
Surrogate: Toluene-d8	*11J1326*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1326*			ug/L					*102*		*80-120*			

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

US EPA ARCHIVE DOCUMENT

TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1430-01														
Acetone	11J1320	0.630	20.0	ug/L	N/A	N/A	17.7	15.3	85	73	45-150	15	35	CIN
Acrylonitrile	11J1320	0.140	20.0	ug/L	N/A	N/A	16.8	15.2	83	75	45-145	10	35	
Benzene	11J1320	0.0400	20.0	ug/L	N/A	N/A	18.5	16.8	92	84	50-130	10	20	
Bromobenzene	11J1320	0.120	20.0	ug/L	N/A	N/A	16.9	16.1	84	80	60-135	5	15	CIN
Bromochloromethane	11J1320	<5.00	20.0	ug/L	N/A	N/A	19.4	19.0	97	95	55-145	2	25	
Bromodichloromethane	11J1320	0.0100	20.0	ug/L	N/A	N/A	17.8	16.3	89	82	50-130	9	15	
Bromoform	11J1320	<5.00	20.0	ug/L	N/A	N/A	15.2	13.3	76	66	30-125	14	25	
Bromomethane	11J1320	0.490	20.0	ug/L	N/A	N/A	16.5	16.0	80	77	30-130	3	35	
2-Butanone (MEK)	11J1320	0.210	20.0	ug/L	N/A	N/A	15.8	14.1	78	69	45-140	12	35	
n-Butylbenzene	11J1320	0.390	20.0	ug/L	N/A	N/A	17.7	16.3	87	79	40-135	9	20	
sec-Butylbenzene	11J1320	0.280	20.0	ug/L	N/A	N/A	17.8	16.1	87	79	40-135	10	20	
tert-Butylbenzene	11J1320	0.200	20.0	ug/L	N/A	N/A	17.8	16.0	88	79	40-135	11	20	
Carbon disulfide	11J1320	0.300	20.0	ug/L	N/A	N/A	19.1	17.2	94	85	30-130	11	30	
Carbon Tetrachloride	11J1320	0.0200	20.0	ug/L	N/A	N/A	17.3	15.8	86	79	35-130	9	20	
Chlorobenzene	11J1320	0.100	20.0	ug/L	N/A	N/A	18.2	16.4	90	81	60-130	10	15	
Chlorodibromomethane	11J1320	0.0300	20.0	ug/L	N/A	N/A	17.9	16.3	89	82	35-130	9	20	
Chloroethane	11J1320	<4.00	20.0	ug/L	N/A	N/A	16.0	16.0	80	80	40-135	0	20	
Chloroform	11J1320	0.100	20.0	ug/L	N/A	N/A	18.2	17.4	90	86	55-125	5	15	
Chloromethane	11J1320	0.180	20.0	ug/L	N/A	N/A	14.6	13.8	72	68	25-125	6	25	
2-Chlorotoluene	11J1320	0.180	20.0	ug/L	N/A	N/A	17.5	16.4	87	81	55-140	7	20	
4-Chlorotoluene	11J1320	0.170	20.0	ug/L	N/A	N/A	17.3	15.8	86	78	50-140	9	20	
1,2-Dibromo-3-chloropropane	11J1320	0.810	20.0	ug/L	N/A	N/A	17.2	14.7	82	69	35-130	16	30	
1,2-Dibromoethane (EDB)	11J1320	0.110	20.0	ug/L	N/A	N/A	17.9	17.2	89	85	55-140	4	20	
Dibromomethane	11J1320	0.0300	20.0	ug/L	N/A	N/A	18.4	16.8	92	84	60-135	9	15	
1,2-Dichlorobenzene	11J1320	0.380	20.0	ug/L	N/A	N/A	17.6	16.1	86	79	55-140	9	20	
1,3-Dichlorobenzene	11J1320	0.300	20.0	ug/L	N/A	N/A	17.3	16.2	85	79	55-135	7	15	
1,4-Dichlorobenzene	11J1320	0.290	20.0	ug/L	N/A	N/A	17.4	15.8	85	78	55-140	9	15	CIN
Dichlorodifluoromethane	11J1320	0.0700	20.0	ug/L	N/A	N/A	12.4	10.6	62	53	15-130	15	25	
1,1-Dichloroethane	11J1320	0.880	20.0	ug/L	N/A	N/A	18.8	17.3	90	82	50-130	8	25	
1,2-Dichloroethane	11J1320	0.110	20.0	ug/L	N/A	N/A	18.2	16.9	90	84	55-140	7	15	
1,1-Dichloroethene	11J1320	4.81	20.0	ug/L	N/A	N/A	20.9	17.6	80	64	35-135	17	30	
cis-1,2-Dichloroethene	11J1320	0.120	20.0	ug/L	N/A	N/A	18.9	17.3	94	86	45-135	9	20	
trans-1,2-Dichloroethene	11J1320	0.0900	20.0	ug/L	N/A	N/A	17.6	16.5	88	82	45-145	7	35	
1,2-Dichloropropane	11J1320	<1.00	20.0	ug/L	N/A	N/A	18.3	16.6	92	83	55-130	9	15	
1,3-Dichloropropane	11J1320	0.0800	20.0	ug/L	N/A	N/A	18.6	17.1	92	85	60-135	8	15	
2,2-Dichloropropane	11J1320	<4.00	20.0	ug/L	N/A	N/A	19.6	17.9	98	90	20-120	9	35	
1,1-Dichloropropene	11J1320	<1.00	20.0	ug/L	N/A	N/A	17.0	16.0	85	80	40-140	6	20	
cis-1,3-Dichloropropene	11J1320	0.0400	20.0	ug/L	N/A	N/A	19.0	17.4	95	87	25-120	9	20	
trans-1,3-Dichloropropene	11J1320	0.0200	20.0	ug/L	N/A	N/A	17.2	16.4	86	82	25-120	5	20	
Ethylbenzene	11J1320	0.110	20.0	ug/L	N/A	N/A	17.2	15.9	86	79	45-135	8	20	
Hexachlorobutadiene	11J1320	1.61	20.0	ug/L	N/A	N/A	17.5	16.0	80	72	40-135	9	30	
Hexane	11J1320	0.180	20.0	ug/L	N/A	N/A	17.3	15.4	86	76	25-135	12	35	
Isopropylbenzene	11J1320	0.100	20.0	ug/L	N/A	N/A	15.6	14.2	77	71	45-125	9	15	
p-Isopropyltoluene	11J1320	0.260	20.0	ug/L	N/A	N/A	16.6	16.1	82	79	40-140	3	20	
Methylene Chloride	11J1320	0.0600	20.0	ug/L	N/A	N/A	18.3	16.4	91	82	45-145	11	30	

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TERRACON - BETTENDORF
870 40th Avenue
Bettendorf, IA 52722
John Brimeyer

Work Order: CUJ1223
Project: Chamberlain - Waterloo, IA
Project Number: 07107020

Received: 10/19/11
Reported: 10/27/11 08:11

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1430-01														
Methyl tert-Butyl Ether	11J1320	0.0800	20.0	ug/L	N/A	N/A	18.8	17.3	94	86	40-135	8	25	
Naphthalene	11J1320	2.67	20.0	ug/L	N/A	N/A	18.2	15.8	77	66	40-135	14	20	
n-Propylbenzene	11J1320	0.190	20.0	ug/L	N/A	N/A	16.8	15.4	83	76	45-140	9	20	
Styrene	11J1320	0.100	20.0	ug/L	N/A	N/A	17.8	16.8	89	83	40-135	6	20	
1,1,1,2-Tetrachloroethane	11J1320	0.0500	20.0	ug/L	N/A	N/A	16.9	16.1	84	80	50-130	5	20	
1,1,2,2-Tetrachloroethane	11J1320	0.250	20.0	ug/L	N/A	N/A	18.0	15.8	89	78	55-140	13	20	
Tetrachloroethene	11J1320	2.96	20.0	ug/L	N/A	N/A	19.0	17.8	80	74	40-135	6	20	
Toluene	11J1320	0.0700	20.0	ug/L	N/A	N/A	18.4	16.9	92	84	45-135	9	20	
1,2,3-Trichlorobenzene	11J1320	2.49	20.0	ug/L	N/A	N/A	18.3	16.7	79	71	50-140	9	25	
1,2,4-Trichlorobenzene	11J1320	1.43	20.0	ug/L	N/A	N/A	18.0	16.1	83	73	40-135	11	25	
1,1,1-Trichloroethane	11J1320	2.40	20.0	ug/L	N/A	N/A	21.0	18.3	93	80	40-125	13	20	
1,1,2-Trichloroethane	11J1320	0.0400	20.0	ug/L	N/A	N/A	18.0	16.2	90	81	60-130	10	15	
Trichloroethene	11J1320	0.210	20.0	ug/L	N/A	N/A	17.4	15.1	86	75	50-130	14	20	
Trichlorofluoromethane	11J1320	0.0400	20.0	ug/L	N/A	N/A	17.4	15.5	87	77	40-145	11	25	
1,2,3-Trichloropropane	11J1320	0.160	20.0	ug/L	N/A	N/A	16.6	15.3	82	76	55-150	8	20	
1,2,4-Trimethylbenzene	11J1320	0.220	20.0	ug/L	N/A	N/A	17.6	16.0	87	79	45-140	9	20	
1,3,5-Trimethylbenzene	11J1320	0.210	20.0	ug/L	N/A	N/A	17.1	16.4	85	81	45-140	4	20	
Vinyl chloride	11J1320	0.0600	20.0	ug/L	N/A	N/A	17.5	16.2	87	81	30-135	8	20	
Xylenes, total	11J1320	0.220	60.0	ug/L	N/A	N/A	52.6	49.2	87	82	40-135	7	20	
Surrogate: Dibromofluoromethane	*11J1320*			ug/L					*99*	*99*	*75-120*			
Surrogate: Toluene-d8	*11J1320*			ug/L					*100*	*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1320*			ug/L					*100*	*100*	*80-120*			
QC Source Sample: CUJ1303-02														
Acetone	11J1326	3.64	20.0	ug/L	N/A	N/A	26.6	25.9	115	111	45-150	3	35	CIN
Acrylonitrile	11J1326	<10.0	20.0	ug/L	N/A	N/A	16.0	15.6	80	78	45-145	2	35	
Benzene	11J1326	0.0100	20.0	ug/L	N/A	N/A	18.4	18.7	92	93	50-130	2	20	
Bromobenzene	11J1326	0.0500	20.0	ug/L	N/A	N/A	17.0	17.4	85	87	60-135	3	15	CIN
Bromochloromethane	11J1326	<5.00	20.0	ug/L	N/A	N/A	19.4	19.9	97	100	55-145	3	25	
Bromodichloromethane	11J1326	0.180	20.0	ug/L	N/A	N/A	17.6	17.5	87	87	50-130	1	15	
Bromoform	11J1326	<5.00	20.0	ug/L	N/A	N/A	15.9	15.9	80	79	30-125	0	25	
Bromomethane	11J1326	0.0500	20.0	ug/L	N/A	N/A	11.4	13.2	57	66	30-130	15	35	
2-Butanone (MEK)	11J1326	0.240	20.0	ug/L	N/A	N/A	17.3	17.2	86	85	45-140	1	35	
n-Butylbenzene	11J1326	0.120	20.0	ug/L	N/A	N/A	16.1	16.2	80	80	40-135	1	20	
sec-Butylbenzene	11J1326	0.0700	20.0	ug/L	N/A	N/A	17.1	17.1	85	85	40-135	0	20	
tert-Butylbenzene	11J1326	0.0500	20.0	ug/L	N/A	N/A	17.3	17.3	86	86	40-135	0	20	
Carbon disulfide	11J1326	1.03	20.0	ug/L	N/A	N/A	18.3	18.4	86	87	30-130	1	30	
Carbon Tetrachloride	11J1326	<2.00	20.0	ug/L	N/A	N/A	17.5	17.1	87	86	35-130	2	20	
Chlorobenzene	11J1326	0.0400	20.0	ug/L	N/A	N/A	17.6	17.6	88	88	60-130	0	15	
Chlorodibromomethane	11J1326	<5.00	20.0	ug/L	N/A	N/A	18.0	18.4	90	92	35-130	2	20	
Chloroethane	11J1326	0.570	20.0	ug/L	N/A	N/A	18.5	17.4	90	84	40-135	6	20	
Chloroform	11J1326	1.39	20.0	ug/L	N/A	N/A	19.6	19.5	91	91	55-125	0	15	
Chloromethane	11J1326	0.0500	20.0	ug/L	N/A	N/A	13.0	13.1	65	65	25-125	1	25	
2-Chlorotoluene	11J1326	0.0300	20.0	ug/L	N/A	N/A	17.0	17.2	85	86	55-140	1	20	
4-Chlorotoluene	11J1326	0.0600	20.0	ug/L	N/A	N/A	16.6	16.9	83	84	50-140	2	20	
1,2-Dibromo-3-chloropropane	11J1326	0.0900	20.0	ug/L	N/A	N/A	17.9	18.8	89	94	35-130	5	30	

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Work Order: CUJ1223
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Received: 10/19/11
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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds														
QC Source Sample: CUJ1303-02														
1,2-Dibromoethane (EDB)	11J1326	<10.0	20.0	ug/L	N/A	N/A	18.4	19.6	92	98	55-140	6	20	
Dibromomethane	11J1326	<1.00	20.0	ug/L	N/A	N/A	18.9	19.4	95	97	60-135	3	15	
1,2-Dichlorobenzene	11J1326	0.0600	20.0	ug/L	N/A	N/A	17.1	17.3	85	86	55-140	1	20	
1,3-Dichlorobenzene	11J1326	0.100	20.0	ug/L	N/A	N/A	16.7	16.8	83	83	55-135	1	15	
1,4-Dichlorobenzene	11J1326	0.290	20.0	ug/L	N/A	N/A	16.3	16.9	80	83	55-140	4	15	CIN
Dichlorodifluoromethane	11J1326	0.0100	20.0	ug/L	N/A	N/A	11.3	11.2	57	56	15-130	1	25	
1,1-Dichloroethane	11J1326	<1.00	20.0	ug/L	N/A	N/A	18.3	17.7	91	89	50-130	3	25	
1,2-Dichloroethane	11J1326	<1.00	20.0	ug/L	N/A	N/A	17.9	18.6	89	93	55-140	4	15	
1,1-Dichloroethene	11J1326	<2.00	20.0	ug/L	N/A	N/A	17.4	16.9	87	84	35-135	3	30	
cis-1,2-Dichloroethene	11J1326	0.0300	20.0	ug/L	N/A	N/A	18.4	17.9	92	89	45-135	3	20	
trans-1,2-Dichloroethene	11J1326	0.0600	20.0	ug/L	N/A	N/A	18.2	18.2	91	91	45-145	0	35	
1,2-Dichloropropane	11J1326	<1.00	20.0	ug/L	N/A	N/A	17.4	18.1	87	91	55-130	4	15	
1,3-Dichloropropane	11J1326	<1.00	20.0	ug/L	N/A	N/A	19.0	18.8	95	94	60-135	1	15	
2,2-Dichloropropane	11J1326	<4.00	20.0	ug/L	N/A	N/A	18.1	18.0	90	90	20-120	0	35	
1,1-Dichloropropene	11J1326	<1.00	20.0	ug/L	N/A	N/A	17.2	17.0	86	85	40-140	1	20	
cis-1,3-Dichloropropene	11J1326	0.0200	20.0	ug/L	N/A	N/A	18.2	18.9	91	94	25-120	4	20	
trans-1,3-Dichloropropene	11J1326	<5.00	20.0	ug/L	N/A	N/A	17.1	17.4	86	87	25-120	2	20	
Ethylbenzene	11J1326	0.0500	20.0	ug/L	N/A	N/A	17.1	17.2	85	86	45-135	1	20	
Hexachlorobutadiene	11J1326	0.480	20.0	ug/L	N/A	N/A	15.9	16.0	77	77	40-135	0	30	
Hexane	11J1326	0.150	20.0	ug/L	N/A	N/A	15.7	15.2	78	75	25-135	3	35	
Isopropylbenzene	11J1326	0.0200	20.0	ug/L	N/A	N/A	15.7	15.6	78	78	45-125	1	15	
p-Isopropyltoluene	11J1326	0.120	20.0	ug/L	N/A	N/A	16.0	16.3	79	81	40-140	2	20	
Methylene Chloride	11J1326	0.150	20.0	ug/L	N/A	N/A	17.9	18.1	89	90	45-145	1	30	
Methyl tert-Butyl Ether	11J1326	0.0100	20.0	ug/L	N/A	N/A	19.9	19.9	99	100	40-135	0	25	
Naphthalene	11J1326	0.600	20.0	ug/L	N/A	N/A	17.8	18.6	86	90	40-135	4	20	
n-Propylbenzene	11J1326	0.0600	20.0	ug/L	N/A	N/A	16.7	16.5	83	82	45-140	1	20	
Styrene	11J1326	0.0300	20.0	ug/L	N/A	N/A	17.5	18.0	87	90	40-135	3	20	
1,1,1,2-Tetrachloroethane	11J1326	<1.00	20.0	ug/L	N/A	N/A	16.7	17.9	84	90	50-130	7	20	
1,1,2,2-Tetrachloroethane	11J1326	<1.00	20.0	ug/L	N/A	N/A	18.8	19.0	94	95	55-140	1	20	
Tetrachloroethene	11J1326	0.0300	20.0	ug/L	N/A	N/A	16.9	17.4	84	87	40-135	3	20	
Toluene	11J1326	0.160	20.0	ug/L	N/A	N/A	18.4	18.1	91	90	45-135	2	20	
1,2,3-Trichlorobenzene	11J1326	0.620	20.0	ug/L	N/A	N/A	17.3	17.5	84	84	50-140	1	25	
1,2,4-Trichlorobenzene	11J1326	0.380	20.0	ug/L	N/A	N/A	15.8	16.2	77	79	40-135	2	25	
1,1,1-Trichloroethane	11J1326	0.0300	20.0	ug/L	N/A	N/A	18.8	19.0	94	95	40-125	1	20	
1,1,2-Trichloroethane	11J1326	0.0300	20.0	ug/L	N/A	N/A	17.8	18.7	89	93	60-130	5	15	
Trichloroethene	11J1326	0.210	20.0	ug/L	N/A	N/A	17.1	17.7	84	87	50-130	3	20	
Trichlorofluoromethane	11J1326	0.0300	20.0	ug/L	N/A	N/A	18.0	17.5	90	87	40-145	3	25	
1,2,3-Trichloropropane	11J1326	<1.00	20.0	ug/L	N/A	N/A	18.5	17.9	93	90	55-150	3	20	
1,2,4-Trimethylbenzene	11J1326	0.0700	20.0	ug/L	N/A	N/A	17.3	17.3	86	86	45-140	0	20	
1,3,5-Trimethylbenzene	11J1326	0.0500	20.0	ug/L	N/A	N/A	16.8	17.4	84	87	45-140	3	20	
Vinyl chloride	11J1326	<1.00	20.0	ug/L	N/A	N/A	17.6	17.3	88	86	30-135	2	20	
Xylenes, total	11J1326	<3.00	60.0	ug/L	N/A	N/A	52.8	53.1	88	88	40-135	1	20	
Surrogate: Dibromofluoromethane	*11J1326*			ug/L					*100*	*100*	*75-120*			
Surrogate: Toluene-d8	*11J1326*			ug/L					*97*	*97*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*11J1326*			ug/L					*100*	*100*	*80-120*			

TestAmerica Cedar Falls
Angela Muehling
Project Coordinator

TERRACON - BETTENDORF 870 40th Avenue Bettendorf, IA 52722 John Brimeyer	Work Order: CUJ1223 Project: Chamberlain - Waterloo, IA Project Number: 07107020	Received: 10/19/11 Reported: 10/27/11 08:11	

CERTIFICATION SUMMARY

TestAmerica Cedar Falls

Method	Matrix	Nelac	Iowa
SW 8260B	Water - NonPotable	X	X
SW	Water - NonPotable		

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

DATA QUALIFIERS AND DEFINITIONS

CIN The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.

ADDITIONAL COMMENTS

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Terracon - Bettendorf
Client #: _____
Address: 2640 12th St SW
City/State/Zip Code: Cedar Rapids IA 52404
Project Manager: John Brimeyer
Email Address: jfbrimeyer@terracon.com
Telephone Number: _____ Fax: _____
Sampler Name: (Print Name) Holly Moriarty
Sampler Signature: [signature]

Project Name: Chamberlain
Project #: 07107020
Site/Location ID: Waterloo State: IA
Report To: John Brimeyer
Invoice To: _____
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N
Email Results: Y N

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify, Other)	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: VOCs 8260										REMARKS
MW-13	10/19/11	945			GW								X										
MW-14		939																					
MW-9		1013																					
MW-5		1058																					
MW-2		1209																					
MW-3		1233																					
MW-7		1318																					
MW-6		1430																					
~~MW-8A~~		~~1400~~																					
Trip Blank																							

DO NOT ANALYZE

Special Instructions:

	Date:	Time:		Date:	Time:
Relinquished By: [signature]	10/19/11	1530	Received By: [signature]	10/19/11	15:20
Relinquished By:			Received By:		
Relinquished By:			Received By:		

TAL-0033 (0708)

Page _____ of _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613
800-750-2401 • 319-277-2425 FAX

Sample Receipt and Temperature Log Form

Client: Terracon Bettendorf Project: Chamberlain

City:

Date: 10-19-11 Receiver's Initials: HE Time (Delivered): 15:20

Temperature Record:

Cooler ID# (If Applicable)
JE14

°C / On Ice

Thermometer:

- [ ] IR - 111531565 'D'
- [ ] IR - 111531506 'E'
- [ ] IR - 61854108 'Front'
- [ ] 101681126

Courier:

- [ ] UPS
- [ ] FedEx
- [ ] FedEx Ground
- [ ] US Postal Service
- [ ] Spee-Dee
- [ ] TA Courier
- [ ] TA Field Services
- [x] Client
- [ ] Other

- [ ] Temp Blank
- [ ] Temperature out of compliance

Custody seals present?
- [ ] Yes

Custody seals intact?
- [ ] Yes
- [ ] No

- [ ] Non-Conformance report started

Exceptions Noted

- [ ] Sample(s) not received in a cooler.
- [x] Samples(s) received same day of sampling.
- [x] Evidence of a chilling process
- [ ] No Temp. Blank. Inside temperature of cooler recorded.
- [x] Temperature not taken:

*Refer to SOP CF-SS-01 for Temperature Criteria

F:\DeimerlyC\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev17.doc

US EPA ARCHIVE DOCUMENT

Terracon

Appendix D

Field Forms

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

*DNR Split

Well Name	MW-1		
Date	10/17/11		
Time	1300		
Depth to Water (DTW)	20.57	feet	
Depth to Bottom (DTB)	29.2	feet	
Well Volume (Vol)	1.4	gallons	(= DTB - DTW)
3 Well Volumes	4.2	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1328	0	15.19	8.35	0.320
1335	1.5	12.84	7.75	0.265
1341	3	12.77	7.34	0.255
1352	4.5	12.80	6.87	0.253
1358	6	12.79	6.71	0.251
1403	7.5	12.79	6.60	0.249

SAMPLE PARAMETERS

Sample Time	1403	
Dissolved Oxygen	2.96	mg/L
Oxidation/Reduction Potential	269.1	mV
Depth to Water	20.60	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

15' S
20' W of Concrete basin
#IDNR split

WELL DATA

Well Name	MW-2		
Date	10/19/11		
Time	1157		
Depth to Water (DTW)	8.47	feet	
Depth to Bottom (DTB)	12.22	feet	
Well Volume (Vol)	0.6	gallons	(= DTB - DTW)
3 Well Volumes	1.8	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1200	0	17.49	7.78	0.313
1203	0.6	17.96	7.51	0.300
1206	1.2	17.98	7.40	0.300
1209	1.8	18.07	7.31	0.301

SAMPLE PARAMETERS

Sample Time	1209	
Dissolved Oxygen	4.17	mg/L
Oxidation/Reduction Potential	302.5	mV
Depth to Water	8.47	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

*IDNR split

Well Name	MW-3		
Date	10/19/11		
Time	1220		
Depth to Water (DTW)	8.74	feet	
Depth to Bottom (DTB)	14.15	feet	
Well Volume (Vol)	0.9 - 1	gallons	(= DTB - DTW)
3 Well Volumes	3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1224	0	16.91	7.25	0.569
1227	1	17.33	7.05	0.573
1230	2	17.33	6.96	0.576
1233	3	17.33	6.87	0.575

SAMPLE PARAMETERS

Sample Time	1233	
Dissolved Oxygen	0.35	mg/L
Oxidation/Reduction Potential	308.1	mV
Depth to Water	8.95	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-4		
Date	10/19/11		
Time	1145		
Depth to Water (DTW)	Dry	feet	
Depth to Bottom (DTB)	8.05	feet	
Well Volume (Vol)		gallons	(= DTB - DTW)
3 Well Volumes		gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (^{0} C)	pH	Specific Conductance (mS/cm)

SAMPLE PARAMETERS

Sample Time		
Dissolved Oxygen		mg/L
Oxidation/Reduction Potential		mV
Depth to Water		feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

IDNR split

Well Name	MW-5		
Date	10/19/14		
Time	1030		
Depth to Water (DTW)	23.29	feet	
Depth to Bottom (DTB)	28.95	feet	
Well Volume (Vol)	[illegible]	gallons	(= DTB - DTW)
3 Well Volumes	3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1037	0	11.84	7.39	0.393
1043	1	12.57	6.94	0.411
1048	2	12.53	6.75	0.415
1053	3	12.52	6.63	0.413
1058	4	12.52	6.53	0.411

SAMPLE PARAMETERS

Sample Time	1058	
Dissolved Oxygen	2.31	mg/L
Oxidation/Reduction Potential	312.8	mV
Depth to Water	23.54	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

*IDNR split

Well Name	MW-6		
Date	10/19/11		
Time	1410		
Depth to Water (DTW)	22.11	feet	
Depth to Bottom (DTB)	29.29	feet	
Well Volume (Vol)	1.2	gallons	(= DTB - DTW)
3 Well Volumes	3.6	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1415	0	13.78	6.89	0.193
1420	1.2	15.35	6.53	0.392
1425	2.4	15.37	6.43	0.391
1430	3.6	15.32	6.36	0.391

SAMPLE PARAMETERS

Sample Time	1430	
Dissolved Oxygen	5.89	mg/L
Oxidation/Reduction Potential	314.4	mV
Depth to Water	22.12	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW7		* Split
Date	10/18/11		
Time	1257		
Depth to Water (DTW)	24.87	feet	
Depth to Bottom (DTB)	28.96	feet	
Well Volume (Vol)	0.65	gallons	(= DTB - DTW)
3 Well Volumes	1.95	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1303	0	13.80	7.59	0.338
1307	0.65	13.04	7.00	0.336
1311	1.3	12.97	6.83	0.335
1315	2	12.88	6.69	0.335
1318	2.7	12.87	6.61	0.335

SAMPLE PARAMETERS

Sample Time	1318	
Dissolved Oxygen	5.03	mg/L
Oxidation/Reduction Potential	313.9	mV
Depth to Water	24.89	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-8		
Date	10/19/11		
Time			
Depth to Water (DTW)	— Dry	feet	
Depth to Bottom (DTB)	16.7	feet	
Well Volume (Vol)		gallons	(= DTB - DTW)
3 Well Volumes		gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (^{0} C)	pH	Specific Conductance (mS/cm)

SAMPLE PARAMETERS

Sample Time		
Dissolved Oxygen		mg/L
Oxidation/Reduction Potential		mV
Depth to Water		feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

*split but not analyzing

WELL DATA

Well Name	MW8A		
Date	10/19/11		
Time	1328		
Depth to Water (DTW)	29.47	feet	16.7
Depth to Bottom (DTB)	32.23	feet	
Well Volume (Vol)	0.5	gallons	(= DTB - DTW)
3 Well Volumes	1.5	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1339	0	12.49	6.99	0.284
1345	0.5	12.01	6.79	0.276
1354	1	12.05	6.60	0.276
1359	1.5	11.89	6.55	0.275

SAMPLE PARAMETERS

Sample Time	1400	
Dissolved Oxygen	7.61	mg/L
Oxidation/Reduction Potential	310+	mV
Depth to Water	29.55	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

*IDMP

Well Name	MW-9		
Date	10/19/11		
Time	9:52		
Depth to Water (DTW)	22.46	feet	
Depth to Bottom (DTB)	23.62	feet	
Well Volume (Vol)	1.2	gallons	(= DTB - DTW)
3 Well Volumes	3.6	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (°C)	pH	Specific Conductance (mS/cm)
0957	0	13.01	7.29	0.509
1003	1.2	12.99	7.01	0.595
1008	2.4	12.90	6.96	0.593
1013	3.6	12.77	6.93	0.591

SAMPLE PARAMETERS

Sample Time	1013	
Dissolved Oxygen	3.85	mg/L
Oxidation/Reduction Potential	160*	mV
Depth to Water	22.48	feet

GW Monitoring Form.xlsx

*Dumped water back down hole.

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

DNR split

Well Name	MW-10		
Date	10/18/11		
Time	10:40		
Depth to Water (DTW)	23.94	feet	
Depth to Bottom (DTB)	26.70	feet	
Well Volume (Vol)	0.45	gallons	(= DTB - DTW)
3 Well Volumes	1.5	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (^{0} C)	pH	Specific Conductance (mS/cm)
10:47	0	13.38	6.58	0.491
10:50	0.5	13.28	6.69	0.513
10:53	1	13.29	6.62	0.522
10:56	1.5	13.27	6.52	0.524

SAMPLE PARAMETERS

Sample Time	10:56	
Dissolved Oxygen	5.55	mg/L
Oxidation/Reduction Potential	29.6	mV
Depth to Water	23.94	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-11		
Date	10/19/11		
Time	8:40		
Depth to Water (DTW)	Dry	feet	
Depth to Bottom (DTB)	11.13	feet	
Well Volume (Vol)		gallons	(= DTB - DTW)
3 Well Volumes		gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (^{0} C)	pH	Specific Conductance (mS/cm)

SAMPLE PARAMETERS

Sample Time		
Dissolved Oxygen		mg/L
Oxidation/Reduction Potential		mV
Depth to Water		feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-12		
Date	10/18/11		
Time	1430		
Depth to Water (DTW)	22.34	feet	
Depth to Bottom (DTB)	29.67	feet	
Well Volume (Vol)	1.2	gallons	(= DTB - DTW)
3 Well Volumes	3.6	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1435	0	12.80	7.63	0.402
1441	1.2	13.42	7.26	0.466
1446	2.4	13.27	6.93	0.468
1452	3.6	13.21	6.63	0.469
1458	4.8	13.21	6.45	0.469
1504	6	13.13	6.40	0.470

SAMPLE PARAMETERS

Sample Time	1505	
Dissolved Oxygen	6.84	mg/L
Oxidation/Reduction Potential	303.9	mV
Depth to Water	22.34	feet

*Dup 2

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-13		
Date	10/19/11		
Time	900		
Depth to Water (DTW)	8.74	feet	
Depth to Bottom (DTB)	13.22	feet	
Well Volume (Vol)		gallons	(= DTB - DTW)
3 Well Volumes		gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
9:00	0	16.78	8.40	0.371
9:04	0.75	18.52	7.81	0.368
9:08	1.5	18.59	7.34	0.378
9:12	2.25	18.52	7.08	0.399
9:16	3	18.53	6.95	0.406

SAMPLE PARAMETERS

Sample Time	9:15	
Dissolved Oxygen	6.21	mg/L
Oxidation/Reduction Potential	300.3	mV
Depth to Water	8.74	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-14		
Date	10/19/11		
Time	9:25		
Depth to Water (DTW)	8.41	feet	
Depth to Bottom (DTB)	13.13	feet	
Well Volume (Vol)	0.75	gallons	(= DTB - DTW)
3 Well Volumes	2.25	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
927	0	15.82	7.32	0.390
931	0.75	17.56	6.87	0.480
935	1.5	17.58	6.73	0.467
939	2.25	17.60	6.67	0.458

SAMPLE PARAMETERS

Sample Time	939	
Dissolved Oxygen	0.50	mg/L
Oxidation/Reduction Potential	301.0	mV
Depth to Water	8.61	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

*DNR Split

Well Name	MW-15		
Date	10/17/11		
Time	1415		
Depth to Water (DTW)	20.50	feet	
Depth to Bottom (DTB)	58.05	feet	
Well Volume (Vol)	6.1	gallons	(= DTB - DTW)
3 Well Volumes	18.3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1420	0	12.40	7.18	0.117
1434	3	11.88	6.93	0.165
1506	6	11.76	7.14	0.413
1520	9	11.73	7.22	0.417
1535	12	11.63	7.28	0.416
1550	15	11.66	7.32	0417
1605	18	11.68	7.34	0.416

SAMPLE PARAMETERS

Sample Time	1605	
Dissolved Oxygen	3.00	mg/L
Oxidation/Reduction Potential	257.6	mV
Depth to Water	20.66	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	MW-16		
Date	10/18/11		
Time	1440		
Depth to Water (DTW)	23.08	feet	
Depth to Bottom (DTB)	48.87	feet	
Well Volume (Vol)	4.2	gallons	(= DTB - DTW)
3 Well Volumes	12.6	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)	
1512	0	13.29	6.08	0.563	
1537	4.2	12.06	6.97	0.569	
1602	8.4	12.24	7.27	0.536	* muddy
1625	12.6	12.27	7.44	0.519	
1650	16.8	12.21	7.27	0.512	
1720	21	11.97	7.34	0.506	

SAMPLE PARAMETERS

Sample Time	1720	
Dissolved Oxygen	3.10	mg/L
Oxidation/Reduction Potential	290.7	mV
Depth to Water	23.36	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

KDNR split

WELL DATA

Well Name	OSMW-3	
Date	10/18/11	
Time	10:00	
Depth to Water (DTW)	13.33	feet
Depth to Bottom (DTB)	18.85	feet
Well Volume (Vol)	0.9	gallons (= DTB - DTW)
3 Well Volumes	2.7	gallons (= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (^{0} C)	pH	Specific Conductance (mS/cm)
10:05	0	12.45	6.78	0.536
10:09	1	12.54	6.80	0.531
10:12	2	12.45	6.77	0.523
10:15	3	12.33	6.75	0.502
10:18	4	12.26	6.75	0.487

SAMPLE PARAMETERS

Sample Time	10:18	
Dissolved Oxygen	0.28	mg/L
Oxidation/Reduction Potential	122.9	mV
Depth to Water	13.85	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

DNR Split

Well Name	OSMW-4		
Date	10/18		
Time	8:20		
Depth to Water (DTW)	13.85	feet	
Depth to Bottom (DTB)	19.86	feet	
Well Volume (Vol)	1	gallons	(= DTB - DTW)
3 Well Volumes	3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
8:23	0	12.58	8.66	0.645
8:32	1	13.23	7.82	0.659
8:36	2	13.26	7.57	0.651
8:40	3	13.26	7.47	0.648

SAMPLE PARAMETERS

Sample Time	8:40	
Dissolved Oxygen	291.0	mg/L
Oxidation/Reduction Potential	4.79	mV
Depth to Water		feet

+ Dup 1

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	OSMW-5		
Date	10/17/11		
Time	9:15		
Depth to Water (DTW)	25.4 ft	feet	
Depth to Bottom (DTB)	27.4 ft	feet	
Well Volume (Vol)	0.326 gal	gallons	(= DTB - DTW)
3 Well Volumes	~1 gal	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

*Called company charged auto shutoff time to 0. Surge & shutoff *

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
9:17	0	14.35	9.54	0.713
9:23	1/3	14.04	8.46	0.809
9:29	1/2	13.96	7.88	0.873
9:32	2/3	14.24	7.63	0.935
9:34	1	14.37	7.47	0.997
9:37	1 1/3	14.40	7.32	1.039
9:41	1 2/3	14.45	7.18	1.090
9:44	2	14.44	7.11	1.111

SAMPLE PARAMETERS

Sample Time	9:45	
Dissolved Oxygen	6.00	mg/L
Oxidation/Reduction Potential	266.1	mV
Depth to Water		feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	OSMW-7		DNR split
Date	10/17/11		
Time	10:00		
Depth to Water (DTW)	20.80	feet	
Depth to Bottom (DTB)	32.20	feet	
Well Volume (Vol)	1.86	gallons	(= DTB - DTW)
3 Well Volumes	5.58	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (°C)	pH	Specific Conductance (mS/cm)
10:13	0	12.07	7.44	0.511
10:21	1.5	12.00	7.24	0.488
10:31	3	11.96	7.20	0.487
10:40	4.5	11.96	7.18	0.486
[illegible]	[illegible]			
10:45	5.5	11.96	7.16	0.487

SAMPLE PARAMETERS

Sample Time	10:50	
Dissolved Oxygen	2.83	mg/L
Oxidation/Reduction Potential	276.0	mV
Depth to Water		feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

*DNR split

WELL DATA

Well Name	OSMW-8	
Date	10/18/11	
Time	9:10	
Depth to Water (DTW)	8.39	feet
Depth to Bottom (DTB)	19.69	feet
Well Volume (Vol)	1.8	gallons (= DTB - DTW)
3 Well Volumes	5.4	gallons (= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
9:15	0	14.02	7.96	0.288
9:21	2	14.52	7.54	0.278
9:28	4	14.51	7.11	0.296
9:35	6	14.49	6.89	0.298
9:40	8	14.46	6.80	0.301

SAMPLE PARAMETERS

Sample Time	9:45	
Dissolved Oxygen	3.23	mg/L
Oxidation/Reduction Potential	288.0	mV
Depth to Water	8.41	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

DNR Split

Well Name	OSMW-9		
Date	10/17/11		
Time	11:15		
Depth to Water (DTW)	18.33	feet	
Depth to Bottom (DTB)	26.44	feet	
Well Volume (Vol)	1.3	gallons	(= DTB - DTW)
3 Well Volumes	3.9	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
11:17	0	14.47	7.54	0.623
11:25	1.5	14.84	7.49	0.623
11:31	3	14.81	7.42	0.623
11:37	4.5	14.70	7.37	0.623

SAMPLE PARAMETERS

Sample Time	11:39	
Dissolved Oxygen	4.22	mg/L
Oxidation/Reduction Potential	298.9	mV
Depth to Water		feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	08MW-10		
Date	10/18/11		
Time	1325		
Depth to Water (DTW)	12.65	feet	
Depth to Bottom (DTB)	24.84	feet	
Well Volume (Vol)	2.6	gallons	(= DTB - DTW)
3 Well Volumes	7.8	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1332	0	14.40	7.93	0.431
1339	2.5	14.16	7.87	0.439
1347	5	14.03	7.69	0.457
1354	7.5	14.04	7.57	0.461
1402	10	13.98	7.59	0.461

SAMPLE PARAMETERS

Sample Time	1402	
Dissolved Oxygen	6.99	mg/L
Oxidation/Reduction Potential	281.7	mV
Depth to Water	12.66	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	05MW-11		
Date	10/18/11		
Time	1300		
Depth to Water (DTW)	10.42	feet	
Depth to Bottom (DTB)	17.22	feet	
Well Volume (Vol)	1.1	gallons	(= DTB - DTW)
3 Well Volumes	3.3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
1306	0	14.97	7.78	0.715
1309	1	15.84	7.85	0.643
1312	2	15.95	7.79	0.613
1315	3	15.99	7.74	0.625

SAMPLE PARAMETERS

Sample Time	1315	
Dissolved Oxygen	2.39	mg/L
Oxidation/Reduction Potential	270.2	mV
Depth to Water	10.45	feet

US EPA ARCHIVE DOCUMENT

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	08MW-13		
Date	10/18/11		
Time	12:20		
Depth to Water (DTW)	12.86	feet	
Depth to Bottom (DTB)	18.08	feet	
Well Volume (Vol)	0.85 → 1	gallons	(= DTB - DTW)
3 Well Volumes	3	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
12:28	0	15.16	7.70	0.665
12:32	1	15.32	7.73	0.670
12:36	2	15.34	7.66	0.669
12:40	3	15.36	7.60	0.667

SAMPLE PARAMETERS

Sample Time	12:40	
Dissolved Oxygen	1.75	mg/L
Oxidation/Reduction Potential	266.0	mV
Depth to Water	12.86	feet

GROUNDWATER MONITORING FORM
CHAMBERLAIN MANUFACTURING
TERRACON PROJECT NO. 07107020

WELL DATA

Well Name	OSMW-14		
Date	10/18/11		
Time	11:20		
Depth to Water (DTW)	10.50	feet	
Depth to Bottom (DTB)	13.73	feet	
Well Volume (Vol)	0.5	gallons	(= DTB - DTW)
3 Well Volumes	1.5	gallons	(= 0.163 * Vol)

GROUNDWATER PARAMETERS

Time	Cumulative Volume (gallons)	Temperature (° C)	pH	Specific Conductance (mS/cm)
11:22	0	14.68	7.17	0.655
11:24	0.5	15.20	7.10	0.644
11:26	1	15.27	7.05	0.639
11:28	1.5	15.30	7.03	0.636

SAMPLE PARAMETERS

Sample Time	11:28	
Dissolved Oxygen	0.45	mg/L
Oxidation/Reduction Potential	240.7	mV
Depth to Water	10.50	feet