Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

August 22, 2016

Matt Faust
Bristol Environmental Remediation Services, LLC
111 W. 16th Avenue
Anchorage, AK 99501

RE: Project: Tower, WI
Pace Project No.: 10358347

Dear Matt Faust:
Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Shawn Davis
shawn.davis@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Tower, WI
Pace Project No.: 10358347

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Montana Certification IDs

150 N. 9th Street, Billings, MT 59101
A2LA Certification #: 3590.01
EPA Region 8 Certification #: 8TMS-L
Idaho Certification #: MT00012
Minnesota Dept of Health Certification #: 030-999-442
Montana Certification #: MT CERT0040
North Dakota Dept. Of Health #: R-209
Washington Department of Ecology #: C993

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SAMPLE SUMMARY

Project: Tower, WI
Pace Project No.: 10358347

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10358347001	**1608TOWERMW16**	Water	08/08/16 10:55	08/09/16 09:30
10358347002	**1608TOWERMW16D**	Water	08/08/16 13:00	08/09/16 09:30
10358347003	**1608TOWERMW18D**	Water	08/08/16 13:30	08/09/16 09:30

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SAMPLE ANALYTE COUNT

Project: Tower, WI
Pace Project No.: 10358347

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10358347001	**1608TOWERMW16**	EPA 6020B	TT3	9	PASI-M
		EPA 245.1	LMW	1	PASI-M
		SM 2510B	CAC	1	PASI-MT
		SM 4500-H+B	CAC	1	PASI-MT
		SM 4500-S2-D	JME	1	PASI-MT
		SM 4500-S H	VRJ	1	PASI-MT
		SM 4500-NO3 H	DCL	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10358347002	**1608TOWERMW16D**	EPA 6020B	TT3	9	PASI-M
		EPA 245.1	LMW	1	PASI-M
		SM 2510B	CAC	1	PASI-MT
		SM 4500-H+B	CAC	1	PASI-MT
		SM 4500-S2-D	JME	1	PASI-MT
		SM 4500-S H	VRJ	1	PASI-MT
		SM 4500-NO3 H	DCL	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10358347003	**1608TOWERMW18D**	EPA 6020B	TT3	9	PASI-M
		EPA 245.1	LMW	1	PASI-M
		SM 2510B	CAC	1	PASI-MT
		SM 4500-H+B	CAC	1	PASI-MT
		SM 4500-S2-D	JME	1	PASI-MT
		SM 4500-S H	VRJ	1	PASI-MT
		SM 4500-NO3 H	DCL	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M

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SUMMARY OF DETECTION

Project: Tower, WI
Pace Project No.: 10358347

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10358347001	**1608TOWERMW16**					
EPA 6020B	Arsenic	1.4	ug/L	0.50	08/19/16 13:58	
EPA 6020B	Barium	181	ug/L	0.30	08/19/16 13:58	
EPA 6020B	Chromium	7.3	ug/L	0.50	08/19/16 13:58	
EPA 6020B	Iron	17000	ug/L	50.0	08/19/16 13:58	
EPA 6020B	Lead	1.7	ug/L	0.10	08/19/16 13:58	
EPA 6020B	Manganese	1760	ug/L	5.0	08/19/16 14:35	
SM 2510B	Specific Conductance	662	umhos/cm	10.0	08/16/16 15:00	
SM 4500-H+B	pH at 25 Degrees C	6.6	Std. Units	0.10	08/15/16 18:48	H6
ASTM D516	Sulfate	7.2	mg/L	3.5	08/12/16 08:34	
10358347002	**1608TOWERMW16D**					
EPA 6020B	Arsenic	0.55	ug/L	0.50	08/19/16 14:01	
EPA 6020B	Barium	173	ug/L	0.30	08/19/16 14:01	
EPA 6020B	Chromium	2.5	ug/L	0.50	08/19/16 14:01	
EPA 6020B	Iron	7220	ug/L	50.0	08/19/16 14:01	
EPA 6020B	Lead	0.41	ug/L	0.10	08/19/16 14:01	
EPA 6020B	Manganese	2260	ug/L	5.0	08/19/16 14:37	
SM 2510B	Specific Conductance	1020	umhos/cm	10.0	08/16/16 15:01	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	08/15/16 18:52	H6
10358347003	**1608TOWERMW18D**					
EPA 6020B	Arsenic	0.58	ug/L	0.50	08/19/16 14:03	
EPA 6020B	Barium	172	ug/L	0.30	08/19/16 14:03	
EPA 6020B	Chromium	2.3	ug/L	0.50	08/19/16 14:03	
EPA 6020B	Iron	7200	ug/L	50.0	08/19/16 14:03	
EPA 6020B	Lead	0.42	ug/L	0.10	08/19/16 14:03	
EPA 6020B	Manganese	2250	ug/L	5.0	08/20/16 16:10	
SM 2510B	Specific Conductance	1030	umhos/cm	10.0	08/16/16 15:02	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	08/15/16 19:07	H6
SM 4500-S2-D	Sulfide	0.40	mg/L	0.10	08/10/16 14:42	
SM 4500-S H	Sulfide as H2S (calc)	0.11	mg/L	0.10	08/16/16 16:40	AL

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **EPA 6020B**
Description: 6020B MET ICPMS
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for EPA 6020B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 429937

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10358621007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2342797)
  - Iron
  - Manganese
- MSD (Lab ID: 2342798)
  - Iron

Additional Comments:

Analyte Comments:

QC Batch: 429937

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 2342797)
  - Iron

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **EPA 6020B**
Description: 6020B MET ICPMS
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

Analyte Comments:

QC Batch: 429937

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 2342797)
  - Manganese
- MSD (Lab ID: 2342798)
  - Iron
  - Manganese

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 2510B**
Description: 2510B Specific Conductance
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- 1608TOWERMW16 (Lab ID: 10358347001)
- 1608TOWERMW16D (Lab ID: 10358347002)
- 1608TOWERMW18D (Lab ID: 10358347003)

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 4500-S2-D**
Description: 4500S2D Sulfide Water
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 4500-S2-D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 4500-S H**
Description: 4500S2H Sulfide as H2S Calc
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 4500-S H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 4500-NO3 H**
Description: SM4500NO3-H, NO2 + NO3 pres.
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 4500-NO3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **ASTM D516**
Description: ASTM D516 Sulfate Water
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for ASTM D516. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 430254

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10358170001,10358349004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2340924)
  - Sulfate
- MSD (Lab ID: 2340925)
  - Sulfate

Additional Comments:

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PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

Method: **SM 4500-NO2 B**
Description: SM4500NO2-B, Nitrite, unpres
Client: Bristol Environmental Remediation Services, LLC
Date: August 22, 2016

General Information:
3 samples were analyzed for SM 4500-NO2 B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

Sample: 1608TOWERMW16 **Lab ID: 10358347001** Collected: 08/08/16 10:55 Received: 08/09/16 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020								
Arsenic	**1.4**	ug/L	0.50	0.091	1	08/18/16 16:36	08/19/16 13:58	7440-38-2	
Barium	**181**	ug/L	0.30	0.019	1	08/18/16 16:36	08/19/16 13:58	7440-39-3	
Cadmium	ND	ug/L	0.080	0.013	1	08/18/16 16:36	08/19/16 13:58	7440-43-9	
Chromium	**7.3**	ug/L	0.50	0.14	1	08/18/16 16:36	08/19/16 13:58	7440-47-3	
Iron	**17000**	ug/L	50.0	18.5	1	08/18/16 16:36	08/19/16 13:58	7439-89-6	
Lead	**1.7**	ug/L	0.10	0.012	1	08/18/16 16:36	08/19/16 13:58	7439-92-1	
Manganese	**1760**	ug/L	5.0	1.3	10	08/18/16 16:36	08/19/16 14:35	7439-96-5	
Selenium	ND	ug/L	0.50	0.13	1	08/18/16 16:36	08/19/16 13:58	7782-49-2	
Silver	ND	ug/L	0.50	0.0092	1	08/18/16 16:36	08/19/16 13:58	7440-22-4	B
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.072	0.031	1	08/11/16 21:00	08/14/16 17:59	7439-97-6	
2510B Specific Conductance	Analytical Method: SM 2510B								
Specific Conductance	**662**	umhos/cm	10.0	10.0	1		08/16/16 15:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.6**	Std. Units	0.10	0.10	1		08/15/16 18:48		H6
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
Sulfide	ND	mg/L	0.10	0.011	1		08/10/16 14:44		
4500S2H Sulfide as H2S Calc	Analytical Method: SM 4500-S H								
Sulfide as H2S (calc)	ND	mg/L	0.10	0.020	1		08/16/16 16:40		AL
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrate as N	ND	mg/L	0.058	0.018	1		08/12/16 13:23	14797-55-8	
Nitrogen, NO2 plus NO3	ND	mg/L	0.17	0.050	1		08/12/16 13:23		
ASTM D516 Sulfate Water	Analytical Method: ASTM D516								
Sulfate	**7.2**	mg/L	3.5	1.0	1		08/12/16 08:34	14808-79-8	
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND	mg/L	0.012	0.0036	1		08/10/16 09:17	14797-65-0	

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ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

Sample: 1608TOWERMW16D **Lab ID: 10358347002** Collected: 08/08/16 13:00 Received: 08/09/16 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020								
Arsenic	**0.55**	ug/L	0.50	0.091	1	08/18/16 16:36	08/19/16 14:01	7440-38-2	
Barium	**173**	ug/L	0.30	0.019	1	08/18/16 16:36	08/19/16 14:01	7440-39-3	
Cadmium	ND	ug/L	0.080	0.013	1	08/18/16 16:36	08/19/16 14:01	7440-43-9	
Chromium	**2.5**	ug/L	0.50	0.14	1	08/18/16 16:36	08/19/16 14:01	7440-47-3	
Iron	**7220**	ug/L	50.0	18.5	1	08/18/16 16:36	08/19/16 14:01	7439-89-6	
Lead	**0.41**	ug/L	0.10	0.012	1	08/18/16 16:36	08/19/16 14:01	7439-92-1	
Manganese	**2260**	ug/L	5.0	1.3	10	08/18/16 16:36	08/19/16 14:37	7439-96-5	
Selenium	ND	ug/L	0.50	0.13	1	08/18/16 16:36	08/19/16 14:01	7782-49-2	
Silver	ND	ug/L	0.50	0.0092	1	08/18/16 16:36	08/19/16 14:01	7440-22-4	B
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.072	0.031	1	08/11/16 21:00	08/14/16 18:01	7439-97-6	
2510B Specific Conductance	Analytical Method: SM 2510B								
Specific Conductance	**1020**	umhos/cm	10.0	10.0	1		08/16/16 15:01		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		08/15/16 18:52		H6
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
Sulfide	ND	mg/L	0.10	0.011	1		08/10/16 14:36		
4500S2H Sulfide as H2S Calc	Analytical Method: SM 4500-S H								
Sulfide as H2S (calc)	ND	mg/L	0.10	0.020	1		08/16/16 16:40		AL
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrate as N	ND	mg/L	0.058	0.018	1		08/12/16 13:27	14797-55-8	
Nitrogen, NO2 plus NO3	ND	mg/L	0.17	0.050	1		08/12/16 13:27		
ASTM D516 Sulfate Water	Analytical Method: ASTM D516								
Sulfate	ND	mg/L	3.5	1.0	1		08/12/16 08:34	14808-79-8	
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND	mg/L	0.012	0.0036	1		08/10/16 09:17	14797-65-0	

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ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

Sample: 1608TOWERMW18D **Lab ID: 10358347003** Collected: 08/08/16 13:30 Received: 08/09/16 09:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3020								
Arsenic	**0.58**	ug/L	0.50	0.091	1	08/18/16 16:36	08/19/16 14:03	7440-38-2	
Barium	**172**	ug/L	0.30	0.019	1	08/18/16 16:36	08/19/16 14:03	7440-39-3	
Cadmium	ND	ug/L	0.080	0.013	1	08/18/16 16:36	08/19/16 14:03	7440-43-9	
Chromium	**2.3**	ug/L	0.50	0.14	1	08/18/16 16:36	08/19/16 14:03	7440-47-3	
Iron	**7200**	ug/L	50.0	18.5	1	08/18/16 16:36	08/19/16 14:03	7439-89-6	
Lead	**0.42**	ug/L	0.10	0.012	1	08/18/16 16:36	08/19/16 14:03	7439-92-1	
Manganese	**2250**	ug/L	5.0	1.3	10	08/18/16 16:36	08/20/16 16:10	7439-96-5	
Selenium	ND	ug/L	0.50	0.13	1	08/18/16 16:36	08/19/16 14:03	7782-49-2	
Silver	ND	ug/L	0.50	0.0092	1	08/18/16 16:36	08/19/16 14:03	7440-22-4	B
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.072	0.031	1	08/11/16 21:00	08/14/16 18:03	7439-97-6	
2510B Specific Conductance	Analytical Method: SM 2510B								
Specific Conductance	**1030**	umhos/cm	10.0	10.0	1		08/16/16 15:02		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		08/15/16 19:07		H6
4500S2D Sulfide Water	Analytical Method: SM 4500-S2-D								
Sulfide	**0.40**	mg/L	0.10	0.011	1		08/10/16 14:42		
4500S2H Sulfide as H2S Calc	Analytical Method: SM 4500-S H								
Sulfide as H2S (calc)	**0.11**	mg/L	0.10	0.020	1		08/16/16 16:40		AL
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrate as N	ND	mg/L	0.058	0.018	1		08/12/16 13:28	14797-55-8	
Nitrogen, NO2 plus NO3	ND	mg/L	0.17	0.050	1		08/12/16 13:28		
ASTM D516 Sulfate Water	Analytical Method: ASTM D516								
Sulfate	ND	mg/L	3.5	1.0	1		08/12/16 08:34	14808-79-8	
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND	mg/L	0.012	0.0036	1		08/10/16 09:17	14797-65-0	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429746 | Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 | Analysis Description: 245.1 Mercury
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2338266 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.072	08/14/16 17:36	

LABORATORY CONTROL SAMPLE: 2338267

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	91	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2338268 2338269

Parameter	Units	10358348001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.00020 mg/L	5	5	4.3	4.4	87	87	70-130	0	20	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429937 | Analysis Method: EPA 6020B
QC Batch Method: EPA 3020 | Analysis Description: 6020B Water UPD5
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2339230 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	0.50	08/19/16 14:16	
Barium	ug/L	ND	0.30	08/19/16 14:16	
Cadmium	ug/L	ND	0.080	08/19/16 14:16	
Chromium	ug/L	ND	0.50	08/19/16 14:16	
Iron	ug/L	ND	50.0	08/19/16 14:16	
Lead	ug/L	ND	0.10	08/19/16 14:16	
Manganese	ug/L	ND	0.50	08/19/16 14:16	
Selenium	ug/L	ND	0.50	08/20/16 16:08	
Silver	ug/L	ND	0.50	08/19/16 14:16	

LABORATORY CONTROL SAMPLE: 2339231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	100	89.0	89	80-120	
Barium	ug/L	100	102	102	80-120	
Cadmium	ug/L	100	101	101	80-120	
Chromium	ug/L	100	103	103	80-120	
Iron	ug/L	2000	1850	92	80-120	
Lead	ug/L	100	103	103	80-120	
Manganese	ug/L	100	100	100	80-120	
Selenium	ug/L	100	92.5	92	80-120	
Silver	ug/L	50	47.2	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2342797 2342798

Parameter	Units	10358621007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	0.43J	100	100	92.4	86.1	92	86	75-125	7	20	
Barium	ug/L	299	100	100	399	401	100	102	75-125	1	20	
Cadmium	ug/L	<0.013	100	100	101	101	101	101	75-125	1	20	
Chromium	ug/L	4.4	100	100	105	105	101	101	75-125	0	20	
Iron	ug/L	65700	2000	2000	60200	56400	-274	-466	75-125	7	20	E,M1
Lead	ug/L	0.41	100	100	100	100	100	100	75-125	0	20	
Manganese	ug/L	1580	100	100	1660	1680	73	100	75-125	2	20	E,M1
Selenium	ug/L	0.19J	100	100	94.1	83.7	94	83	75-125	12	20	
Silver	ug/L	0.013J	50	50	45.6	41.9	91	84	75-125	9	20	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430853 | Analysis Method: SM 2510B
QC Batch Method: SM 2510B | Analysis Description: 2510B Specific Conductance
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2343818 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	08/16/16 14:58	

LABORATORY CONTROL SAMPLE: 2343819

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1010	101	90-110	

SAMPLE DUPLICATE: 2343820

Parameter	Units	10358347002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1020	1020	0	20	

SAMPLE DUPLICATE: 2343821

Parameter	Units	10358621007 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	2100	2100	0	20	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430697 | Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B | Analysis Description: 4500H+B pH
Associated Lab Samples: 10358347001, 10358347002, 10358347003

LABORATORY CONTROL SAMPLE: 2343119

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	7	7.0	100	98-102	H6

SAMPLE DUPLICATE: 2343120

Parameter	Units	10358347002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	3	H6

SAMPLE DUPLICATE: 2343121

Parameter	Units	10358621007 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.5	6.4	0	3	H6

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429845 Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2338757 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	08/10/16 14:24	

LABORATORY CONTROL SAMPLE: 2338758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	.98	0.98	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2338759 2338760

Parameter	Units	10358288001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	.98	.98	0.92	0.95	95	97	80-120	3	20	

SAMPLE DUPLICATE: 2338761

Parameter	Units	10358347001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430242 | Analysis Method: SM 4500-NO3 H
QC Batch Method: SM 4500-NO3 H | Analysis Description: SM4500NO3-H, NO2 + NO3 pres.
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2340871 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.17	08/12/16 12:59	

LABORATORY CONTROL SAMPLE: 2340872

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340873 2340874

Parameter	Units	10357827002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	8.45	2.5	2.5	10.9	10.8	97	93	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340875 2340876

Parameter	Units	10357853006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	ND	2.5	2.5	2.5	2.4	98	95	80-120	2	30	

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430254 | Analysis Method: ASTM D516
QC Batch Method: ASTM D516 | Analysis Description: ASTM D516 Sulfate Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2340919 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	3.5	08/12/16 08:23	

LABORATORY CONTROL SAMPLE & LCSD: 2340920 2340921

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Sulfate	mg/L	7.5	8.3	8.3	111	111	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340922 2340923

Parameter	Units	10358170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	20	20	19.4	19.5	94	95	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340924 2340925

Parameter	Units	10358349004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	25.7	20	20	40.6	39.3	75	68	80-120	3	30	M1

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QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429639 | Analysis Method: SM 4500-NO2 B
QC Batch Method: SM 4500-NO2 B | Analysis Description: SM4500NO2-B, Nitrite, unpres
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2337776 | Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	ND	0.012	08/10/16 19:17	

LABORATORY CONTROL SAMPLE: 2337777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	.3	0.31	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2337778 2337779

Parameter	Units	10357833008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrite as N	mg/L	3.48	3	3	6.1	6.2	89	89	80-120	0	30	

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QUALIFIERS

Project: Tower, WI
Pace Project No.: 10358347

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-MT	Pace Analytical Services - Montana

ANALYTE QUALIFIERS

AL	The lab does not hold A2LA accreditation for this parameter.
B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tower, WI
Pace Project No.: 10358347

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10358347001	**1608TOWERMW16**	EPA 3020	429937	EPA 6020B	431485
10358347002	**1608TOWERMW16D**	EPA 3020	429937	EPA 6020B	431485
10358347003	**1608TOWERMW18D**	EPA 3020	429937	EPA 6020B	431485
10358347001	**1608TOWERMW16**	EPA 245.1	429746	EPA 245.1	430319
10358347002	**1608TOWERMW16D**	EPA 245.1	429746	EPA 245.1	430319
10358347003	**1608TOWERMW18D**	EPA 245.1	429746	EPA 245.1	430319
10358347001	**1608TOWERMW16**	SM 2510B	430853		
10358347002	**1608TOWERMW16D**	SM 2510B	430853		
10358347003	**1608TOWERMW18D**	SM 2510B	430853		
10358347001	**1608TOWERMW16**	SM 4500-H+B	430697		
10358347002	**1608TOWERMW16D**	SM 4500-H+B	430697		
10358347003	**1608TOWERMW18D**	SM 4500-H+B	430697		
10358347001	**1608TOWERMW16**	SM 4500-S2-D	429845		
10358347002	**1608TOWERMW16D**	SM 4500-S2-D	429845		
10358347003	**1608TOWERMW18D**	SM 4500-S2-D	429845		
10358347001	**1608TOWERMW16**	SM 4500-S H	430947		
10358347002	**1608TOWERMW16D**	SM 4500-S H	430947		
10358347003	**1608TOWERMW18D**	SM 4500-S H	430947		
10358347001	**1608TOWERMW16**	SM 4500-NO3 H	430242		
10358347002	**1608TOWERMW16D**	SM 4500-NO3 H	430242		
10358347003	**1608TOWERMW18D**	SM 4500-NO3 H	430242		
10358347001	**1608TOWERMW16**	ASTM D516	430254		
10358347002	**1608TOWERMW16D**	ASTM D516	430254		
10358347003	**1608TOWERMW18D**	ASTM D516	430254		
10358347001	**1608TOWERMW16**	SM 4500-NO2 B	429639		
10358347002	**1608TOWERMW16D**	SM 4500-NO2 B	429639		
10358347003	**1608TOWERMW18D**	SM 4500-NO2 B	429639		

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10358347

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company:	Bristol Environmental Remediation Services, LLC
Address:	111 W. 16th Avenue
	Anchorage, AK 99501
Email:	mfaust@bristol-companies.com
Phone:	(907)743-9346 Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	Matt Faust
Copy To:	
Purchase Order #:	
Project Name:	Tower, WI
Project #:	

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	shawn.davis@pacelabs.com,
Pace Profile #:	35445

Regulatory Agency:

State / Location: WI

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	VOC by 8260	EDB 8011	GRO by WIGRO	Sulfate/Nitrate	Nitrate + Nitrite	Metals by 6020	DRO by WIDRO	Sulfide by SM4500-S2-D	BTEX by 8260	6010 - Pb	Moisture/ Dry weight		Residual Chlorine (Y/N)		
1	1608TOWERMW1U	W	G	8/8/16	1055	←			4		X	X		X								X	X	X		X						MW-1U	001
2	1608TOWERMW1UD	W	↓		1300	←			↓		X	X		X								X	X	X		X						MW-1UD	002
3	1608TOWERMW18D	W	↓	↓	1330	←			↓		X	X		X								X	X	X		X						MW-1BD	003
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Robert Beckman / Bristol	8/8/16	1430	[illegible]	8-9-16	9:30	1.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Beckman

SIGNATURE of SAMPLER: [signature] DATE Signed: 8/8/16

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

EPA-R5-2017-010506_0005669

Pace Analytical®	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 04Apr2016 Page 1 of 1
	Document No.: **F-MN-L-213-rev.16**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Bristol Enviro. Remediation **Project #:**

WO#: 10358347

10358347

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 7837 7278 4727

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other: plastic bags **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ 151401163 ☑ 151401164 ☐ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.8 **Cooler Temp Corrected (°C):** 1.8 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.0 **Date and Initials of Person Examining Contents:** KRC 8-9-16

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A	13. ☑ HNO_3 1/1 ☑ H_2SO_4 1/1 ☑ NaOH 1/1 ☐ HCl Sample # 1-3
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Matt Faust (email) Date/Time: 8/9/16

Comments/Resolution:

Double check required metals list 6020, as well as H2S test.

Project Manager Review: Shawn Janis **Date:** 8/9/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 10358347 **Workorder Name:** Tower, WI **Owner Received Date:** 8/9/2016 **Due Date:** 8/23/2016

Received at:
Pace Analytical Minnesota
1700 Elm Street
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700

Send To Lab:
Pace Analytical Billings MT
150 N Ninth Street
Billings, MT 59101
Phone (406)254-7226

Report To:
Shawn Davis

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other						Requested Analysis: SM4500-S2-D	SM4500-S-H											LAB USE ONLY
1	1608TOWERMW16	PS	8/8/2016 10:55	10358347001	Water	)						X	X											
2	1608TOWERMW16D	PS	8/8/2016 13:00	10358347002	Water	)						X	X											
3	1608TOWERMW18D	PS	8/8/2016 13:30	10358347003	Water	)						X	X											
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Dawn Jain/Pace MPLS	8-9-16 1330		
2	Fed Ex		M Wooten Pace	8/10/16 1000
3				
4				

Comments
pH, conductance done in mpls

Cooler Temperature on Receipt 0.6 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

EPA-R5-2017-010506_0005669

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 04Aug2016 Page 1 of 1
	Document No.: **F-MT-C-184-Rev.10**	Issuing Authority: Pace Montana Quality Office

Sample Condition Upon Receipt

Client Name: Pace-MP

Project #: 1035 8347

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 6751 5818 8004

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☒ Yes ☐ No

Thermometer Used: ☒ 160285052 ☐ 140279186 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun ☐ NA

Cooler Temp Read: 1.1

Date and Initials of Person Examining Contents: MW 8/10/16

Cooler Temp Corrected: 0.6

Biological Tissue Frozen? ☐ Yes ☒ No

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: H_2O	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☒ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 3/3 ☐ NaOH ☐ HCl Sample # 001-003
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☒ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: MW Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased): NA				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Shannon Davis **Date:** 8/10/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 10358347 **Workorder Name:** Tower, WI **Owner Received Date:** 8/9/2016 **Due Date:** 8/23/2016

Received at:	Send To Lab:
Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Billings MT 150 N Ninth Street Billings, MT 59101 Phone (406)254-7226

Report To:
Shawn Davis

Requested Analysis

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	Preserved Containers: Unpreserved	SM 4500-H+B	SM 4500-S2-D	SM 4500-S-H	SM 2510B	LAB USE ONLY
1	1608TOWERMW16	PS	8/8/2016 10:55	10358347001	Water	1		X	X	X	X	
2	1608TOWERMW16D	PS	8/8/2016 13:00	10358347002	Water	1		X	X	X	X	
3	1608TOWERMW18D	PS	8/8/2016 13:30	10358347003	Water	1		X	X	X	X	
4												
5												

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	8-12-16 1500		
2	Fed Ex		[illegible]	8/13/16 1030
3				
4				

Comments

Sulfide, H2S bottle already Sat 8/11

Cooler Temperature on Receipt 1.3 °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 04Aug2016 Page 1 of 1
	Document No.: **F-MT-C-184-Rev.10**	Issuing Authority: Pace Montana Quality Office

Sample Condition Upon Receipt

Client Name: Pace MN

Project #: 10358347

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other: _____

Tracking Number: 6751 5818 9445

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☒ Yes ☐ No

Thermometer Used: ☒ 160285052 ☐ 140279186 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun ☐ NA

Cooler Temp Read: 1.8 **Date and Initials of Person Examining Contents:** 8/13 MH

Cooler Temp Corrected: 1.3 **Biological Tissue Frozen?** ☐ Yes ☒ No

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and Signature on COC?	☐ Yes	☐ No	☒ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	NA
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased): NA				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Shannon Davis **Date:** 8/15/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)