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

April 07, 2016

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

RE: Project: 34160024 Tower Standard
Pace Project No.: 10343074

Dear Matt Faust:
Enclosed are the analytical results for sample(s) received by the laboratory on March 30, 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

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

# CERTIFICATIONS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**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



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# SAMPLE SUMMARY

Project: 34160024 Tower Standard
Pace Project No.: 10343074

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10343074001** | **16TSGW01** | Water | 03/29/16 10:30 | 03/30/16 10:55 |
| **10343074002** | **16TSGW02** | Water | 03/29/16 12:45 | 03/30/16 10:55 |
| **10343074003** | **16TSGW03** | Water | 03/29/16 13:00 | 03/30/16 10:55 |
| **10343074004** | **16TSTB01** | Water | 03/29/16 10:30 | 03/30/16 10:55 |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# SAMPLE ANALYTE COUNT

Project: 34160024 Tower Standard
Pace Project No.: 10343074

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10343074001** | **16TSGW01** | EPA 6010C | IP | 2 | PASI-M |
| | | EPA 8260B | PRD | 70 | PASI-M |
| | | EPA 300.0 | KEO | 2 | PASI-M |
| **10343074002** | **16TSGW02** | EPA 6010C | IP | 2 | PASI-M |
| | | EPA 8260B | PRD | 70 | PASI-M |
| | | EPA 300.0 | KEO | 2 | PASI-M |
| **10343074003** | **16TSGW03** | EPA 6010C | IP | 2 | PASI-M |
| | | EPA 8260B | PRD | 70 | PASI-M |
| | | EPA 300.0 | KEO | 2 | PASI-M |
| **10343074004** | **16TSTB01** | EPA 8260B | PRD | 70 | PASI-M |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# PROJECT NARRATIVE

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Method:** **EPA 6010C**
**Description:** 6010C MET ICP
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** April 07, 2016

**General Information:**
3 samples were analyzed for EPA 6010C. 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 3010 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 report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# PROJECT NARRATIVE

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Method:** **EPA 8260B**
**Description:** 8260B VOC
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** April 07, 2016

**General Information:**
4 samples were analyzed for EPA 8260B. 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:**



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# PROJECT NARRATIVE

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Method:** **EPA 300.0**
**Description:** 300.0 IC Anions
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** April 07, 2016

**General Information:**
3 samples were analyzed for EPA 300.0. 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: WETA/26735

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10342478001,10342971002

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

- MS (Lab ID: 2220415)
  - Nitrate as N
  - Sulfate
- MSD (Lab ID: 2220416)
  - Nitrate as N
  - Sulfate

**Additional Comments:**

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



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW01** **Lab ID: 10343074001** Collected: 03/29/16 10:30 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010C MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3010 | | | | | | | | |
| Iron | **29700** | ug/L | 34.0 | 10.2 | 1 | 03/31/16 21:32 | 04/06/16 13:42 | 7439-89-6 | |
| Manganese | **1920** | ug/L | 1.9 | 0.56 | 1 | 03/31/16 21:32 | 04/05/16 15:33 | 7439-96-5 | |
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Acetone | ND | ug/L | 23.5 | 7.1 | 1 | | 04/06/16 23:38 | 67-64-1 | |
| Allyl chloride | ND | ug/L | 1.9 | 0.58 | 1 | | 04/06/16 23:38 | 107-05-1 | |
| Benzene | **1.1** | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:38 | 71-43-2 | |
| Bromobenzene | ND | ug/L | 0.82 | 0.25 | 1 | | 04/06/16 23:38 | 108-86-1 | |
| Bromochloromethane | ND | ug/L | 1.1 | 0.34 | 1 | | 04/06/16 23:38 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 0.61 | 0.18 | 1 | | 04/06/16 23:38 | 75-27-4 | |
| Bromoform | ND | ug/L | 1.4 | 0.41 | 1 | | 04/06/16 23:38 | 75-25-2 | |
| Bromomethane | ND | ug/L | 1.2 | 0.36 | 1 | | 04/06/16 23:38 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 8.3 | 2.5 | 1 | | 04/06/16 23:38 | 78-93-3 | |
| n-Butylbenzene | ND | ug/L | 0.28 | 0.083 | 1 | | 04/06/16 23:38 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/L | 0.55 | 0.16 | 1 | | 04/06/16 23:38 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/L | 0.62 | 0.18 | 1 | | 04/06/16 23:38 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/L | 1.2 | 0.35 | 1 | | 04/06/16 23:38 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:38 | 108-90-7 | |
| Chloroethane | ND | ug/L | 1.1 | 0.34 | 1 | | 04/06/16 23:38 | 75-00-3 | |
| Chloroform | ND | ug/L | 0.90 | 0.27 | 1 | | 04/06/16 23:38 | 67-66-3 | |
| Chloromethane | ND | ug/L | 2.1 | 0.64 | 1 | | 04/06/16 23:38 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/L | 0.72 | 0.22 | 1 | | 04/06/16 23:38 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/L | 0.79 | 0.24 | 1 | | 04/06/16 23:38 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 2.3 | 0.70 | 1 | | 04/06/16 23:38 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 0.53 | 0.16 | 1 | | 04/06/16 23:38 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:38 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 1.0 | 0.31 | 1 | | 04/06/16 23:38 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 0.75 | 0.22 | 1 | | 04/06/16 23:38 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:38 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 0.54 | 0.16 | 1 | | 04/06/16 23:38 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/L | 1.6 | 0.49 | 1 | | 04/06/16 23:38 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 0.75 | 0.22 | 1 | | 04/06/16 23:38 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 0.56 | 0.17 | 1 | | 04/06/16 23:38 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:38 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 0.83 | 0.25 | 1 | | 04/06/16 23:38 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 0.70 | 0.21 | 1 | | 04/06/16 23:38 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/L | 0.73 | 0.22 | 1 | | 04/06/16 23:38 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/L | 1.4 | 0.42 | 1 | | 04/06/16 23:38 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 0.79 | 0.24 | 1 | | 04/06/16 23:38 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 1.2 | 0.36 | 1 | | 04/06/16 23:38 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 0.55 | 0.16 | 1 | | 04/06/16 23:38 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 0.69 | 0.21 | 1 | | 04/06/16 23:38 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 0.73 | 0.22 | 1 | | 04/06/16 23:38 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/L | 1.2 | 0.38 | 1 | | 04/06/16 23:38 | 60-29-7 | |
| Ethylbenzene | ND | ug/L | 0.76 | 0.23 | 1 | | 04/06/16 23:38 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 1.6 | 0.48 | 1 | | 04/06/16 23:38 | 87-68-3 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW01** **Lab ID: 10343074001** Collected: 03/29/16 10:30 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Isopropylbenzene (Cumene) | ND | ug/L | 0.57 | 0.17 | 1 | | 04/06/16 23:38 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/L | 0.53 | 0.16 | 1 | | 04/06/16 23:38 | 99-87-6 | |
| Methylene Chloride | ND | ug/L | 1.9 | 0.56 | 1 | | 04/06/16 23:38 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 8.1 | 2.4 | 1 | | 04/06/16 23:38 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/L | 0.67 | 0.20 | 1 | | 04/06/16 23:38 | 1634-04-4 | |
| Naphthalene | ND | ug/L | 0.46 | 0.14 | 1 | | 04/06/16 23:38 | 91-20-3 | |
| n-Propylbenzene | ND | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:38 | 103-65-1 | |
| Styrene | ND | ug/L | 0.37 | 0.11 | 1 | | 04/06/16 23:38 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 0.65 | 0.20 | 1 | | 04/06/16 23:38 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:38 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 0.64 | 0.19 | 1 | | 04/06/16 23:38 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/L | 13.5 | 4.0 | 1 | | 04/06/16 23:38 | 109-99-9 | |
| Toluene | ND | ug/L | 0.45 | 0.13 | 1 | | 04/06/16 23:38 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:38 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:38 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 0.68 | 0.20 | 1 | | 04/06/16 23:38 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 0.80 | 0.24 | 1 | | 04/06/16 23:38 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 0.47 | 0.14 | 1 | | 04/06/16 23:38 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 0.61 | 0.18 | 1 | | 04/06/16 23:38 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.7 | 0.50 | 1 | | 04/06/16 23:38 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | 1.4 | 0.42 | 1 | | 04/06/16 23:38 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 0.52 | 0.16 | 1 | | 04/06/16 23:38 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 0.65 | 0.20 | 1 | | 04/06/16 23:38 | 108-67-8 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.15 | 1 | | 04/06/16 23:38 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 2.0 | 0.60 | 1 | | 04/06/16 23:38 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 104 | %. | 75-125 | | 1 | | 04/06/16 23:38 | 17060-07-0 | |
| Toluene-d8 (S) | 102 | %. | 75-125 | | 1 | | 04/06/16 23:38 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | %. | 75-125 | | 1 | | 04/06/16 23:38 | 460-00-4 | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0 | | | | | | | | |
| Nitrate as N | ND | mg/L | 1.7 | 0.50 | 10 | | 03/31/16 10:15 | 14797-55-8 | |
| Sulfate | ND | mg/L | 20.0 | 6.0 | 10 | | 03/31/16 10:15 | 14808-79-8 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW02** **Lab ID: 10343074002** Collected: 03/29/16 12:45 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010C MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3010 | | | | | | | | |
| Iron | **14500** | ug/L | 34.0 | 10.2 | 1 | 03/31/16 21:32 | 04/06/16 13:58 | 7439-89-6 | |
| Manganese | **2100** | ug/L | 1.9 | 0.56 | 1 | 03/31/16 21:32 | 04/05/16 15:49 | 7439-96-5 | |
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Acetone | ND | ug/L | 235 | 70.6 | 10 | | 04/07/16 00:52 | 67-64-1 | |
| Allyl chloride | ND | ug/L | 19.4 | 5.8 | 10 | | 04/07/16 00:52 | 107-05-1 | |
| Benzene | **1130** | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 00:52 | 71-43-2 | |
| Bromobenzene | ND | ug/L | 8.2 | 2.5 | 10 | | 04/07/16 00:52 | 108-86-1 | |
| Bromochloromethane | ND | ug/L | 11.4 | 3.4 | 10 | | 04/07/16 00:52 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 6.1 | 1.8 | 10 | | 04/07/16 00:52 | 75-27-4 | |
| Bromoform | ND | ug/L | 13.6 | 4.1 | 10 | | 04/07/16 00:52 | 75-25-2 | |
| Bromomethane | ND | ug/L | 11.9 | 3.6 | 10 | | 04/07/16 00:52 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 82.9 | 24.9 | 10 | | 04/07/16 00:52 | 78-93-3 | |
| n-Butylbenzene | ND | ug/L | 2.8 | 0.83 | 10 | | 04/07/16 00:52 | 104-51-8 | B |
| sec-Butylbenzene | ND | ug/L | 5.5 | 1.6 | 10 | | 04/07/16 00:52 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/L | 6.2 | 1.8 | 10 | | 04/07/16 00:52 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/L | 11.7 | 3.5 | 10 | | 04/07/16 00:52 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 00:52 | 108-90-7 | |
| Chloroethane | ND | ug/L | 11.3 | 3.4 | 10 | | 04/07/16 00:52 | 75-00-3 | |
| Chloroform | ND | ug/L | 9.0 | 2.7 | 10 | | 04/07/16 00:52 | 67-66-3 | |
| Chloromethane | ND | ug/L | 21.2 | 6.4 | 10 | | 04/07/16 00:52 | 74-87-3 | |
| 2-Chlorotoluene | **21.1** | ug/L | 7.2 | 2.2 | 10 | | 04/07/16 00:52 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/L | 7.9 | 2.4 | 10 | | 04/07/16 00:52 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 23.3 | 7.0 | 10 | | 04/07/16 00:52 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 5.3 | 1.6 | 10 | | 04/07/16 00:52 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 00:52 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.3 | 3.1 | 10 | | 04/07/16 00:52 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 7.5 | 2.2 | 10 | | 04/07/16 00:52 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 00:52 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.4 | 1.6 | 10 | | 04/07/16 00:52 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/L | 16.4 | 4.9 | 10 | | 04/07/16 00:52 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 7.5 | 2.2 | 10 | | 04/07/16 00:52 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 5.6 | 1.7 | 10 | | 04/07/16 00:52 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 00:52 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 8.3 | 2.5 | 10 | | 04/07/16 00:52 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 7.0 | 2.1 | 10 | | 04/07/16 00:52 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/L | 7.3 | 2.2 | 10 | | 04/07/16 00:52 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/L | 14.1 | 4.2 | 10 | | 04/07/16 00:52 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 7.9 | 2.4 | 10 | | 04/07/16 00:52 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 12.0 | 3.6 | 10 | | 04/07/16 00:52 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.5 | 1.6 | 10 | | 04/07/16 00:52 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 6.9 | 2.1 | 10 | | 04/07/16 00:52 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 7.3 | 2.2 | 10 | | 04/07/16 00:52 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/L | 12.5 | 3.8 | 10 | | 04/07/16 00:52 | 60-29-7 | |
| Ethylbenzene | **51.8** | ug/L | 7.6 | 2.3 | 10 | | 04/07/16 00:52 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 16.0 | 4.8 | 10 | | 04/07/16 00:52 | 87-68-3 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW02** **Lab ID: 10343074002** Collected: 03/29/16 12:45 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Isopropylbenzene (Cumene) | **18.5** | ug/L | 5.7 | 1.7 | 10 | | 04/07/16 00:52 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/L | 5.3 | 1.6 | 10 | | 04/07/16 00:52 | 99-87-6 | |
| Methylene Chloride | ND | ug/L | 18.8 | 5.6 | 10 | | 04/07/16 00:52 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 80.9 | 24.3 | 10 | | 04/07/16 00:52 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/L | 6.7 | 2.0 | 10 | | 04/07/16 00:52 | 1634-04-4 | |
| Naphthalene | **70.0** | ug/L | 4.6 | 1.4 | 10 | | 04/07/16 00:52 | 91-20-3 | |
| n-Propylbenzene | **44.9** | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 00:52 | 103-65-1 | |
| Styrene | ND | ug/L | 3.7 | 1.1 | 10 | | 04/07/16 00:52 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 6.5 | 2.0 | 10 | | 04/07/16 00:52 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 00:52 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 6.4 | 1.9 | 10 | | 04/07/16 00:52 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/L | 135 | 40.5 | 10 | | 04/07/16 00:52 | 109-99-9 | |
| Toluene | **18.9** | ug/L | 4.5 | 1.3 | 10 | | 04/07/16 00:52 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 00:52 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 00:52 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 6.8 | 2.0 | 10 | | 04/07/16 00:52 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 8.0 | 2.4 | 10 | | 04/07/16 00:52 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 4.7 | 1.4 | 10 | | 04/07/16 00:52 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 6.1 | 1.8 | 10 | | 04/07/16 00:52 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 16.7 | 5.0 | 10 | | 04/07/16 00:52 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | 14.0 | 4.2 | 10 | | 04/07/16 00:52 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **294** | ug/L | 5.2 | 1.6 | 10 | | 04/07/16 00:52 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **53.1** | ug/L | 6.5 | 2.0 | 10 | | 04/07/16 00:52 | 108-67-8 | |
| Vinyl chloride | ND | ug/L | 10.0 | 1.5 | 10 | | 04/07/16 00:52 | 75-01-4 | |
| Xylene (Total) | **1280** | ug/L | 20.1 | 6.0 | 10 | | 04/07/16 00:52 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 104 | %. | 75-125 | | 10 | | 04/07/16 00:52 | 17060-07-0 | |
| Toluene-d8 (S) | 103 | %. | 75-125 | | 10 | | 04/07/16 00:52 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | %. | 75-125 | | 10 | | 04/07/16 00:52 | 460-00-4 | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0 | | | | | | | | |
| Nitrate as N | **2.2** | mg/L | 1.7 | 0.50 | 10 | | 03/31/16 10:31 | 14797-55-8 | |
| Sulfate | ND | mg/L | 20.0 | 6.0 | 10 | | 03/31/16 10:31 | 14808-79-8 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW03** **Lab ID: 10343074003** Collected: 03/29/16 13:00 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010C MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3010 | | | | | | | | |
| Iron | **14000** | ug/L | 34.0 | 10.2 | 1 | 03/31/16 21:32 | 04/06/16 14:02 | 7439-89-6 | |
| Manganese | **2110** | ug/L | 1.9 | 0.56 | 1 | 03/31/16 21:32 | 04/05/16 15:52 | 7439-96-5 | |
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Acetone | ND | ug/L | 235 | 70.6 | 10 | | 04/07/16 01:07 | 67-64-1 | |
| Allyl chloride | ND | ug/L | 19.4 | 5.8 | 10 | | 04/07/16 01:07 | 107-05-1 | |
| Benzene | **1110** | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 01:07 | 71-43-2 | |
| Bromobenzene | ND | ug/L | 8.2 | 2.5 | 10 | | 04/07/16 01:07 | 108-86-1 | |
| Bromochloromethane | ND | ug/L | 11.4 | 3.4 | 10 | | 04/07/16 01:07 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 6.1 | 1.8 | 10 | | 04/07/16 01:07 | 75-27-4 | |
| Bromoform | ND | ug/L | 13.6 | 4.1 | 10 | | 04/07/16 01:07 | 75-25-2 | |
| Bromomethane | ND | ug/L | 11.9 | 3.6 | 10 | | 04/07/16 01:07 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 82.9 | 24.9 | 10 | | 04/07/16 01:07 | 78-93-3 | |
| n-Butylbenzene | ND | ug/L | 2.8 | 0.83 | 10 | | 04/07/16 01:07 | 104-51-8 | B |
| sec-Butylbenzene | ND | ug/L | 5.5 | 1.6 | 10 | | 04/07/16 01:07 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/L | 6.2 | 1.8 | 10 | | 04/07/16 01:07 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/L | 11.7 | 3.5 | 10 | | 04/07/16 01:07 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 01:07 | 108-90-7 | |
| Chloroethane | ND | ug/L | 11.3 | 3.4 | 10 | | 04/07/16 01:07 | 75-00-3 | |
| Chloroform | ND | ug/L | 9.0 | 2.7 | 10 | | 04/07/16 01:07 | 67-66-3 | B |
| Chloromethane | ND | ug/L | 21.2 | 6.4 | 10 | | 04/07/16 01:07 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/L | 7.2 | 2.2 | 10 | | 04/07/16 01:07 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/L | 7.9 | 2.4 | 10 | | 04/07/16 01:07 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 23.3 | 7.0 | 10 | | 04/07/16 01:07 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 5.3 | 1.6 | 10 | | 04/07/16 01:07 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 01:07 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.3 | 3.1 | 10 | | 04/07/16 01:07 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 7.5 | 2.2 | 10 | | 04/07/16 01:07 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 01:07 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.4 | 1.6 | 10 | | 04/07/16 01:07 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/L | 16.4 | 4.9 | 10 | | 04/07/16 01:07 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 7.5 | 2.2 | 10 | | 04/07/16 01:07 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 5.6 | 1.7 | 10 | | 04/07/16 01:07 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 01:07 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 8.3 | 2.5 | 10 | | 04/07/16 01:07 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 7.0 | 2.1 | 10 | | 04/07/16 01:07 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/L | 7.3 | 2.2 | 10 | | 04/07/16 01:07 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/L | 14.1 | 4.2 | 10 | | 04/07/16 01:07 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 7.9 | 2.4 | 10 | | 04/07/16 01:07 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 12.0 | 3.6 | 10 | | 04/07/16 01:07 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.5 | 1.6 | 10 | | 04/07/16 01:07 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 6.9 | 2.1 | 10 | | 04/07/16 01:07 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 7.3 | 2.2 | 10 | | 04/07/16 01:07 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/L | 12.5 | 3.8 | 10 | | 04/07/16 01:07 | 60-29-7 | |
| Ethylbenzene | **54.9** | ug/L | 7.6 | 2.3 | 10 | | 04/07/16 01:07 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 16.0 | 4.8 | 10 | | 04/07/16 01:07 | 87-68-3 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSGW03** **Lab ID: 10343074003** Collected: 03/29/16 13:00 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Isopropylbenzene (Cumene) | **18.4** | ug/L | 5.7 | 1.7 | 10 | | 04/07/16 01:07 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/L | 5.3 | 1.6 | 10 | | 04/07/16 01:07 | 99-87-6 | |
| Methylene Chloride | ND | ug/L | 18.8 | 5.6 | 10 | | 04/07/16 01:07 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 80.9 | 24.3 | 10 | | 04/07/16 01:07 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/L | 6.7 | 2.0 | 10 | | 04/07/16 01:07 | 1634-04-4 | |
| Naphthalene | **76.6** | ug/L | 4.6 | 1.4 | 10 | | 04/07/16 01:07 | 91-20-3 | |
| n-Propylbenzene | **45.4** | ug/L | 7.1 | 2.1 | 10 | | 04/07/16 01:07 | 103-65-1 | |
| Styrene | ND | ug/L | 3.7 | 1.1 | 10 | | 04/07/16 01:07 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 6.5 | 2.0 | 10 | | 04/07/16 01:07 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 01:07 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 6.4 | 1.9 | 10 | | 04/07/16 01:07 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/L | 135 | 40.5 | 10 | | 04/07/16 01:07 | 109-99-9 | |
| Toluene | **20.3** | ug/L | 4.5 | 1.3 | 10 | | 04/07/16 01:07 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 7.7 | 2.3 | 10 | | 04/07/16 01:07 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 7.4 | 2.2 | 10 | | 04/07/16 01:07 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 6.8 | 2.0 | 10 | | 04/07/16 01:07 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 8.0 | 2.4 | 10 | | 04/07/16 01:07 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 4.7 | 1.4 | 10 | | 04/07/16 01:07 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 6.1 | 1.8 | 10 | | 04/07/16 01:07 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 16.7 | 5.0 | 10 | | 04/07/16 01:07 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | 14.0 | 4.2 | 10 | | 04/07/16 01:07 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | **302** | ug/L | 5.2 | 1.6 | 10 | | 04/07/16 01:07 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **56.0** | ug/L | 6.5 | 2.0 | 10 | | 04/07/16 01:07 | 108-67-8 | |
| Vinyl chloride | ND | ug/L | 10.0 | 1.5 | 10 | | 04/07/16 01:07 | 75-01-4 | |
| Xylene (Total) | **1300** | ug/L | 20.1 | 6.0 | 10 | | 04/07/16 01:07 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 102 | %. | 75-125 | | 10 | | 04/07/16 01:07 | 17060-07-0 | |
| Toluene-d8 (S) | 104 | %. | 75-125 | | 10 | | 04/07/16 01:07 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 102 | %. | 75-125 | | 10 | | 04/07/16 01:07 | 460-00-4 | |
| **300.0 IC Anions** | Analytical Method: EPA 300.0 | | | | | | | | |
| Nitrate as N | ND | mg/L | 1.7 | 0.50 | 10 | | 03/31/16 10:46 | 14797-55-8 | |
| Sulfate | ND | mg/L | 20.0 | 6.0 | 10 | | 03/31/16 10:46 | 14808-79-8 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSTB01** **Lab ID: 10343074004** Collected: 03/29/16 10:30 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Acetone | ND | ug/L | 23.5 | 7.1 | 1 | | 04/06/16 23:53 | 67-64-1 | |
| Allyl chloride | ND | ug/L | 1.9 | 0.58 | 1 | | 04/06/16 23:53 | 107-05-1 | |
| Benzene | ND | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:53 | 71-43-2 | |
| Bromobenzene | ND | ug/L | 0.82 | 0.25 | 1 | | 04/06/16 23:53 | 108-86-1 | |
| Bromochloromethane | ND | ug/L | 1.1 | 0.34 | 1 | | 04/06/16 23:53 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 0.61 | 0.18 | 1 | | 04/06/16 23:53 | 75-27-4 | |
| Bromoform | ND | ug/L | 1.4 | 0.41 | 1 | | 04/06/16 23:53 | 75-25-2 | |
| Bromomethane | ND | ug/L | 1.2 | 0.36 | 1 | | 04/06/16 23:53 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 8.3 | 2.5 | 1 | | 04/06/16 23:53 | 78-93-3 | |
| n-Butylbenzene | ND | ug/L | 0.28 | 0.083 | 1 | | 04/06/16 23:53 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/L | 0.55 | 0.16 | 1 | | 04/06/16 23:53 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/L | 0.62 | 0.18 | 1 | | 04/06/16 23:53 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/L | 1.2 | 0.35 | 1 | | 04/06/16 23:53 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:53 | 108-90-7 | |
| Chloroethane | ND | ug/L | 1.1 | 0.34 | 1 | | 04/06/16 23:53 | 75-00-3 | |
| Chloroform | ND | ug/L | 0.90 | 0.27 | 1 | | 04/06/16 23:53 | 67-66-3 | |
| Chloromethane | ND | ug/L | 2.1 | 0.64 | 1 | | 04/06/16 23:53 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/L | 0.72 | 0.22 | 1 | | 04/06/16 23:53 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/L | 0.79 | 0.24 | 1 | | 04/06/16 23:53 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 2.3 | 0.70 | 1 | | 04/06/16 23:53 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 0.53 | 0.16 | 1 | | 04/06/16 23:53 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:53 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 1.0 | 0.31 | 1 | | 04/06/16 23:53 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 0.75 | 0.22 | 1 | | 04/06/16 23:53 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:53 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 0.54 | 0.16 | 1 | | 04/06/16 23:53 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/L | 1.6 | 0.49 | 1 | | 04/06/16 23:53 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 0.75 | 0.22 | 1 | | 04/06/16 23:53 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 0.56 | 0.17 | 1 | | 04/06/16 23:53 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:53 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 0.83 | 0.25 | 1 | | 04/06/16 23:53 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 0.70 | 0.21 | 1 | | 04/06/16 23:53 | 156-60-5 | |
| Dichlorofluoromethane | ND | ug/L | 0.73 | 0.22 | 1 | | 04/06/16 23:53 | 75-43-4 | |
| 1,2-Dichloropropane | ND | ug/L | 1.4 | 0.42 | 1 | | 04/06/16 23:53 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 0.79 | 0.24 | 1 | | 04/06/16 23:53 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 1.2 | 0.36 | 1 | | 04/06/16 23:53 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 0.55 | 0.16 | 1 | | 04/06/16 23:53 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 0.69 | 0.21 | 1 | | 04/06/16 23:53 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 0.73 | 0.22 | 1 | | 04/06/16 23:53 | 10061-02-6 | |
| Diethyl ether (Ethyl ether) | ND | ug/L | 1.2 | 0.38 | 1 | | 04/06/16 23:53 | 60-29-7 | |
| Ethylbenzene | ND | ug/L | 0.76 | 0.23 | 1 | | 04/06/16 23:53 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 1.6 | 0.48 | 1 | | 04/06/16 23:53 | 87-68-3 | |
| Isopropylbenzene (Cumene) | ND | ug/L | 0.57 | 0.17 | 1 | | 04/06/16 23:53 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/L | 0.53 | 0.16 | 1 | | 04/06/16 23:53 | 99-87-6 | |
| Methylene Chloride | ND | ug/L | 1.9 | 0.56 | 1 | | 04/06/16 23:53 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 8.1 | 2.4 | 1 | | 04/06/16 23:53 | 108-10-1 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# ANALYTICAL RESULTS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

**Sample: 16TSTB01** **Lab ID: 10343074004** Collected: 03/29/16 10:30 Received: 03/30/16 10:55 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260B VOC** | Analytical Method: EPA 8260B | | | | | | | | |
| Methyl-tert-butyl ether | ND | ug/L | 0.67 | 0.20 | 1 | | 04/06/16 23:53 | 1634-04-4 | |
| Naphthalene | ND | ug/L | 0.46 | 0.14 | 1 | | 04/06/16 23:53 | 91-20-3 | |
| n-Propylbenzene | ND | ug/L | 0.71 | 0.21 | 1 | | 04/06/16 23:53 | 103-65-1 | |
| Styrene | ND | ug/L | 0.37 | 0.11 | 1 | | 04/06/16 23:53 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 0.65 | 0.20 | 1 | | 04/06/16 23:53 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:53 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 0.64 | 0.19 | 1 | | 04/06/16 23:53 | 127-18-4 | |
| Tetrahydrofuran | ND | ug/L | 13.5 | 4.0 | 1 | | 04/06/16 23:53 | 109-99-9 | |
| Toluene | ND | ug/L | 0.45 | 0.13 | 1 | | 04/06/16 23:53 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/L | 0.77 | 0.23 | 1 | | 04/06/16 23:53 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 0.74 | 0.22 | 1 | | 04/06/16 23:53 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 0.68 | 0.20 | 1 | | 04/06/16 23:53 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 0.80 | 0.24 | 1 | | 04/06/16 23:53 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 0.47 | 0.14 | 1 | | 04/06/16 23:53 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 0.61 | 0.18 | 1 | | 04/06/16 23:53 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.7 | 0.50 | 1 | | 04/06/16 23:53 | 96-18-4 | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | 1.4 | 0.42 | 1 | | 04/06/16 23:53 | 76-13-1 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 0.52 | 0.16 | 1 | | 04/06/16 23:53 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 0.65 | 0.20 | 1 | | 04/06/16 23:53 | 108-67-8 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.15 | 1 | | 04/06/16 23:53 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 2.0 | 0.60 | 1 | | 04/06/16 23:53 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 104 | %. | 75-125 | | 1 | | 04/06/16 23:53 | 17060-07-0 | |
| Toluene-d8 (S) | 103 | %. | 75-125 | | 1 | | 04/06/16 23:53 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 100 | %. | 75-125 | | 1 | | 04/06/16 23:53 | 460-00-4 | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

QC Batch: MPRP/62316 Analysis Method: EPA 6010C
QC Batch Method: EPA 3010 Analysis Description: 6010C Water
Associated Lab Samples: 10343074001, 10343074002, 10343074003

METHOD BLANK: 2220335 Matrix: Water
Associated Lab Samples: 10343074001, 10343074002, 10343074003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Iron | ug/L | ND | 34.0 | 04/06/16 13:36 | |
| Manganese | ug/L | ND | 1.9 | 04/05/16 15:26 | |

LABORATORY CONTROL SAMPLE: 2220336

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Iron | ug/L | 10000 | 9130 | 91 | 80-120 | |
| Manganese | ug/L | 1000 | 945 | 95 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2220337 2220338

| Parameter | Units | 10343074001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | ug/L | 29700 | 10000 | 10000 | 38800 | 37700 | 91 | 80 | 75-125 | 3 | 20 | |
| Manganese | ug/L | 1920 | 1000 | 1000 | 2850 | 2780 | 93 | 86 | 75-125 | 2 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

QC Batch: MSV/35116 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10343074001, 10343074002, 10343074003, 10343074004

METHOD BLANK: 2225476 Matrix: Water
Associated Lab Samples: 10343074001, 10343074002, 10343074003, 10343074004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 0.65 | 04/06/16 22:09 | |
| 1,1,1-Trichloroethane | ug/L | ND | 0.68 | 04/06/16 22:09 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 0.74 | 04/06/16 22:09 | |
| 1,1,2-Trichloroethane | ug/L | ND | 0.80 | 04/06/16 22:09 | |
| 1,1,2-Trichlorotrifluoroethane | ug/L | ND | 1.4 | 04/06/16 22:09 | |
| 1,1-Dichloroethane | ug/L | ND | 0.75 | 04/06/16 22:09 | |
| 1,1-Dichloroethene | ug/L | ND | 0.74 | 04/06/16 22:09 | |
| 1,1-Dichloropropene | ug/L | ND | 0.55 | 04/06/16 22:09 | |
| 1,2,3-Trichlorobenzene | ug/L | ND | 0.77 | 04/06/16 22:09 | |
| 1,2,3-Trichloropropane | ug/L | ND | 1.7 | 04/06/16 22:09 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 0.74 | 04/06/16 22:09 | |
| 1,2,4-Trimethylbenzene | ug/L | ND | 0.52 | 04/06/16 22:09 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 2.3 | 04/06/16 22:09 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 0.77 | 04/06/16 22:09 | |
| 1,2-Dichlorobenzene | ug/L | ND | 0.75 | 04/06/16 22:09 | |
| 1,2-Dichloroethane | ug/L | ND | 0.56 | 04/06/16 22:09 | |
| 1,2-Dichloropropane | ug/L | ND | 1.4 | 04/06/16 22:09 | |
| 1,3,5-Trimethylbenzene | ug/L | ND | 0.65 | 04/06/16 22:09 | |
| 1,3-Dichlorobenzene | ug/L | ND | 0.71 | 04/06/16 22:09 | |
| 1,3-Dichloropropane | ug/L | ND | 0.79 | 04/06/16 22:09 | |
| 1,4-Dichlorobenzene | ug/L | ND | 0.54 | 04/06/16 22:09 | |
| 2,2-Dichloropropane | ug/L | ND | 1.2 | 04/06/16 22:09 | |
| 2-Butanone (MEK) | ug/L | ND | 8.3 | 04/06/16 22:09 | |
| 2-Chlorotoluene | ug/L | ND | 0.72 | 04/06/16 22:09 | |
| 4-Chlorotoluene | ug/L | ND | 0.79 | 04/06/16 22:09 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 8.1 | 04/06/16 22:09 | |
| Acetone | ug/L | ND | 23.5 | 04/06/16 22:09 | |
| Allyl chloride | ug/L | ND | 1.9 | 04/06/16 22:09 | |
| Benzene | ug/L | ND | 0.71 | 04/06/16 22:09 | |
| Bromobenzene | ug/L | ND | 0.82 | 04/06/16 22:09 | |
| Bromochloromethane | ug/L | ND | 1.1 | 04/06/16 22:09 | |
| Bromodichloromethane | ug/L | ND | 0.61 | 04/06/16 22:09 | |
| Bromoform | ug/L | ND | 1.4 | 04/06/16 22:09 | |
| Bromomethane | ug/L | ND | 1.2 | 04/06/16 22:09 | |
| Carbon tetrachloride | ug/L | ND | 1.2 | 04/06/16 22:09 | |
| Chlorobenzene | ug/L | ND | 0.77 | 04/06/16 22:09 | |
| Chloroethane | ug/L | ND | 1.1 | 04/06/16 22:09 | |
| Chloroform | ug/L | ND | 0.90 | 04/06/16 22:09 | |
| Chloromethane | ug/L | ND | 2.1 | 04/06/16 22:09 | |
| cis-1,2-Dichloroethene | ug/L | ND | 0.83 | 04/06/16 22:09 | |
| cis-1,3-Dichloropropene | ug/L | ND | 0.69 | 04/06/16 22:09 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

METHOD BLANK: 2225476 Matrix: Water
Associated Lab Samples: 10343074001, 10343074002, 10343074003, 10343074004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dibromochloromethane | ug/L | ND | 0.53 | 04/06/16 22:09 | |
| Dibromomethane | ug/L | ND | 1.0 | 04/06/16 22:09 | |
| Dichlorodifluoromethane | ug/L | ND | 1.6 | 04/06/16 22:09 | |
| Dichlorofluoromethane | ug/L | ND | 0.73 | 04/06/16 22:09 | |
| Diethyl ether (Ethyl ether) | ug/L | ND | 1.2 | 04/06/16 22:09 | |
| Ethylbenzene | ug/L | ND | 0.76 | 04/06/16 22:09 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 1.6 | 04/06/16 22:09 | |
| Isopropylbenzene (Cumene) | ug/L | ND | 0.57 | 04/06/16 22:09 | |
| Methyl-tert-butyl ether | ug/L | ND | 0.67 | 04/06/16 22:09 | |
| Methylene Chloride | ug/L | ND | 1.9 | 04/06/16 22:09 | |
| n-Butylbenzene | ug/L | ND | 0.28 | 04/06/16 22:09 | |
| n-Propylbenzene | ug/L | ND | 0.71 | 04/06/16 22:09 | |
| Naphthalene | ug/L | ND | 0.46 | 04/06/16 22:09 | |
| p-Isopropyltoluene | ug/L | ND | 0.53 | 04/06/16 22:09 | |
| sec-Butylbenzene | ug/L | ND | 0.55 | 04/06/16 22:09 | |
| Styrene | ug/L | ND | 0.37 | 04/06/16 22:09 | |
| tert-Butylbenzene | ug/L | ND | 0.62 | 04/06/16 22:09 | |
| Tetrachloroethene | ug/L | ND | 0.64 | 04/06/16 22:09 | |
| Tetrahydrofuran | ug/L | ND | 13.5 | 04/06/16 22:09 | |
| Toluene | ug/L | ND | 0.45 | 04/06/16 22:09 | |
| trans-1,2-Dichloroethene | ug/L | ND | 0.70 | 04/06/16 22:09 | |
| trans-1,3-Dichloropropene | ug/L | ND | 0.73 | 04/06/16 22:09 | |
| Trichloroethene | ug/L | ND | 0.47 | 04/06/16 22:09 | |
| Trichlorofluoromethane | ug/L | ND | 0.61 | 04/06/16 22:09 | |
| Vinyl chloride | ug/L | ND | 1.0 | 04/06/16 22:09 | |
| Xylene (Total) | ug/L | ND | 2.0 | 04/06/16 22:09 | |
| 1,2-Dichloroethane-d4 (S) | %. | 104 | 75-125 | 04/06/16 22:09 | |
| 4-Bromofluorobenzene (S) | %. | 101 | 75-125 | 04/06/16 22:09 | |
| Toluene-d8 (S) | %. | 102 | 75-125 | 04/06/16 22:09 | |

LABORATORY CONTROL SAMPLE: 2225477

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 54.4 | 109 | 75-125 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 45.8 | 92 | 73-125 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 49.6 | 99 | 75-128 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 48.6 | 97 | 75-129 | |
| 1,1,2-Trichlorotrifluoroethane | ug/L | 50 | 48.1 | 96 | 69-125 | |
| 1,1-Dichloroethane | ug/L | 50 | 43.9 | 88 | 75-131 | |
| 1,1-Dichloroethene | ug/L | 50 | 50.6 | 101 | 72-125 | |
| 1,1-Dichloropropene | ug/L | 50 | 47.5 | 95 | 74-125 | |
| 1,2,3-Trichlorobenzene | ug/L | 50 | 49.1 | 98 | 68-127 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 53.6 | 107 | 75-125 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 49.5 | 99 | 70-125 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

LABORATORY CONTROL SAMPLE: 2225477

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/L | 50 | 52.0 | 104 | 75-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 125 | 130 | 104 | 74-125 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 53.0 | 106 | 75-125 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 49.7 | 99 | 75-125 | |
| 1,2-Dichloroethane | ug/L | 50 | 44.4 | 89 | 72-129 | |
| 1,2-Dichloropropane | ug/L | 50 | 47.4 | 95 | 71-129 | |
| 1,3,5-Trimethylbenzene | ug/L | 50 | 51.3 | 103 | 75-127 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 50.0 | 100 | 75-125 | |
| 1,3-Dichloropropane | ug/L | 50 | 50.1 | 100 | 75-125 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 48.1 | 96 | 75-125 | |
| 2,2-Dichloropropane | ug/L | 50 | 43.5 | 87 | 71-125 | |
| 2-Butanone (MEK) | ug/L | 250 | 238 | 95 | 58-150 | |
| 2-Chlorotoluene | ug/L | 50 | 49.8 | 100 | 75-125 | |
| 4-Chlorotoluene | ug/L | 50 | 49.5 | 99 | 75-130 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 250 | 267 | 107 | 72-140 | |
| Acetone | ug/L | 250 | 248 | 99 | 69-137 | |
| Allyl chloride | ug/L | 50 | 47.7 | 95 | 68-132 | |
| Benzene | ug/L | 50 | 46.1 | 92 | 75-125 | |
| Bromobenzene | ug/L | 50 | 49.9 | 100 | 75-125 | |
| Bromochloromethane | ug/L | 50 | 47.9 | 96 | 75-125 | |
| Bromodichloromethane | ug/L | 50 | 49.2 | 98 | 69-128 | |
| Bromoform | ug/L | 50 | 44.3 | 89 | 75-125 | |
| Bromomethane | ug/L | 50 | 34.4 | 69 | 30-150 | |
| Carbon tetrachloride | ug/L | 50 | 50.9 | 102 | 74-125 | |
| Chlorobenzene | ug/L | 50 | 49.5 | 99 | 75-125 | |
| Chloroethane | ug/L | 50 | 42.8 | 86 | 60-150 | |
| Chloroform | ug/L | 50 | 43.9 | 88 | 75-126 | |
| Chloromethane | ug/L | 50 | 38.7 | 77 | 46-150 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 47.7 | 95 | 75-126 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 50.8 | 102 | 75-125 | |
| Dibromochloromethane | ug/L | 50 | 49.6 | 99 | 75-125 | |
| Dibromomethane | ug/L | 50 | 52.7 | 105 | 72-127 | |
| Dichlorodifluoromethane | ug/L | 50 | 44.4 | 89 | 58-135 | |
| Dichlorofluoromethane | ug/L | 50 | 49.5 | 99 | 68-149 | |
| Diethyl ether (Ethyl ether) | ug/L | 50 | 45.2 | 90 | 66-144 | |
| Ethylbenzene | ug/L | 50 | 48.1 | 96 | 75-125 | |
| Hexachloro-1,3-butadiene | ug/L | 50 | 46.5 | 93 | 73-125 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 50.3 | 101 | 69-140 | |
| Methyl-tert-butyl ether | ug/L | 50 | 48.4 | 97 | 75-126 | |
| Methylene Chloride | ug/L | 50 | 43.6 | 87 | 71-130 | |
| n-Butylbenzene | ug/L | 50 | 51.5 | 103 | 71-129 | |
| n-Propylbenzene | ug/L | 50 | 49.9 | 100 | 71-133 | |
| Naphthalene | ug/L | 50 | 50.8 | 102 | 59-137 | |
| p-Isopropyltoluene | ug/L | 50 | 50.3 | 101 | 74-127 | |
| sec-Butylbenzene | ug/L | 50 | 48.7 | 97 | 66-140 | |
| Styrene | ug/L | 50 | 53.3 | 107 | 75-125 | |
| tert-Butylbenzene | ug/L | 50 | 47.5 | 95 | 73-129 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

LABORATORY CONTROL SAMPLE: 2225477

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Tetrachloroethene | ug/L | 50 | 48.4 | 97 | 75-125 | |
| Tetrahydrofuran | ug/L | 500 | 513 | 103 | 71-129 | |
| Toluene | ug/L | 50 | 49.6 | 99 | 75-125 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 45.1 | 90 | 75-125 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 51.3 | 103 | 75-125 | |
| Trichloroethene | ug/L | 50 | 48.3 | 97 | 75-125 | |
| Trichlorofluoromethane | ug/L | 50 | 50.1 | 100 | 74-128 | |
| Vinyl chloride | ug/L | 50 | 46.9 | 94 | 71-131 | |
| Xylene (Total) | ug/L | 150 | 147 | 98 | 75-125 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | 100 | 75-125 | |
| 4-Bromofluorobenzene (S) | %. | | | 100 | 75-125 | |
| Toluene-d8 (S) | %. | | | 104 | 75-125 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2225478 2225479

| Parameter | Units | 10343221003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 20 | 20 | 20.0 | 21.0 | 100 | 105 | 75-125 | 5 | 30 | |
| 1,1,1-Trichloroethane | ug/L | ND | 20 | 20 | 18.8 | 19.1 | 94 | 96 | 71-144 | 2 | 30 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 20 | 20 | 17.8 | 18.9 | 89 | 94 | 75-131 | 6 | 30 | |
| 1,1,2-Trichloroethane | ug/L | ND | 20 | 20 | 18.3 | 18.4 | 91 | 92 | 75-125 | 1 | 30 | |
| 1,1,2-Trichlorotrifluoroethane | ug/L | ND | 20 | 20 | 22.4 | 23.0 | 112 | 115 | 75-150 | 3 | 30 | |
| 1,1-Dichloroethane | ug/L | ND | 20 | 20 | 17.0 | 17.0 | 85 | 85 | 64-150 | 0 | 30 | |
| 1,1-Dichloroethene | ug/L | ND | 20 | 20 | 21.2 | 20.7 | 106 | 104 | 68-150 | 2 | 30 | |
| 1,1-Dichloropropene | ug/L | ND | 20 | 20 | 19.7 | 19.8 | 99 | 99 | 68-145 | 0 | 30 | |
| 1,2,3-Trichlorobenzene | ug/L | ND | 20 | 20 | 17.3 | 19.5 | 86 | 97 | 57-142 | 12 | 30 | |
| 1,2,3-Trichloropropane | ug/L | ND | 20 | 20 | 19.7 | 19.3 | 98 | 96 | 75-125 | 2 | 30 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 20 | 20 | 17.5 | 19.2 | 88 | 96 | 60-135 | 9 | 30 | |
| 1,2,4-Trimethylbenzene | ug/L | ND | 20 | 20 | 20.0 | 20.3 | 100 | 101 | 67-148 | 2 | 30 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 50 | 50 | 44.3 | 45.5 | 89 | 91 | 32-137 | 3 | 30 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 20 | 20 | 19.9 | 20.0 | 99 | 100 | 75-125 | 1 | 30 | |
| 1,2-Dichlorobenzene | ug/L | ND | 20 | 20 | 18.6 | 18.8 | 93 | 94 | 75-125 | 1 | 30 | |
| 1,2-Dichloroethane | ug/L | ND | 20 | 20 | 16.5 | 16.8 | 82 | 83 | 62-138 | 2 | 30 | |
| 1,2-Dichloropropane | ug/L | ND | 20 | 20 | 17.7 | 18.3 | 88 | 91 | 62-144 | 3 | 30 | |
| 1,3,5-Trimethylbenzene | ug/L | ND | 20 | 20 | 19.7 | 20.1 | 98 | 101 | 67-148 | 2 | 30 | |
| 1,3-Dichlorobenzene | ug/L | ND | 20 | 20 | 18.6 | 19.7 | 93 | 99 | 74-131 | 6 | 30 | |
| 1,3-Dichloropropane | ug/L | ND | 20 | 20 | 18.4 | 18.7 | 92 | 93 | 75-127 | 2 | 30 | |
| 1,4-Dichlorobenzene | ug/L | ND | 20 | 20 | 18.1 | 18.3 | 90 | 92 | 74-126 | 1 | 30 | |
| 2,2-Dichloropropane | ug/L | ND | 20 | 20 | 14.8 | 15.1 | 74 | 76 | 56-146 | 2 | 30 | |
| 2-Butanone (MEK) | ug/L | ND | 100 | 100 | 83.9 | 88.5 | 84 | 89 | 47-150 | 5 | 30 | |
| 2-Chlorotoluene | ug/L | ND | 20 | 20 | 18.9 | 19.4 | 95 | 97 | 74-137 | 3 | 30 | |
| 4-Chlorotoluene | ug/L | ND | 20 | 20 | 18.6 | 19.3 | 93 | 97 | 72-138 | 4 | 30 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 100 | 100 | 97.2 | 100 | 97 | 100 | 60-147 | 3 | 30 | |
| Acetone | ug/L | ND | 100 | 100 | 89.3 | 94.3 | 86 | 92 | 61-150 | 6 | 30 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2225478 2225479

| Parameter | Units | 10343221003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allyl chloride | ug/L | ND | 20 | 20 | 17.6 | 17.7 | 88 | 89 | 53-150 | 1 | 30 | |
| Benzene | ug/L | ND | 20 | 20 | 17.5 | 18.0 | 88 | 90 | 52-147 | 3 | 30 | |
| Bromobenzene | ug/L | ND | 20 | 20 | 18.5 | 19.2 | 93 | 96 | 75-129 | 4 | 30 | |
| Bromochloromethane | ug/L | ND | 20 | 20 | 18.3 | 17.9 | 92 | 90 | 72-128 | 2 | 30 | |
| Bromodichloromethane | ug/L | ND | 20 | 20 | 18.3 | 18.7 | 91 | 93 | 65-137 | 2 | 30 | |
| Bromoform | ug/L | ND | 20 | 20 | 14.4 | 14.1 | 72 | 71 | 59-133 | 2 | 30 | |
| Bromomethane | ug/L | ND | 20 | 20 | 13.5 | 12.5 | 67 | 62 | 30-150 | 8 | 30 | |
| Carbon tetrachloride | ug/L | ND | 20 | 20 | 21.4 | 21.5 | 107 | 107 | 73-144 | 0 | 30 | |
| Chlorobenzene | ug/L | ND | 20 | 20 | 19.1 | 19.5 | 96 | 97 | 75-126 | 2 | 30 | |
| Chloroethane | ug/L | ND | 20 | 20 | 19.3 | 20.1 | 97 | 101 | 55-150 | 4 | 30 | |
| Chloroform | ug/L | ND | 20 | 20 | 16.9 | 17.0 | 84 | 85 | 66-143 | 1 | 30 | |
| Chloromethane | ug/L | ND | 20 | 20 | 16.0 | 16.1 | 79 | 80 | 42-150 | 1 | 30 | |
| cis-1,2-Dichloroethene | ug/L | ND | 20 | 20 | 18.9 | 18.2 | 94 | 91 | 65-143 | 4 | 30 | |
| cis-1,3-Dichloropropene | ug/L | ND | 20 | 20 | 16.8 | 17.7 | 84 | 88 | 75-125 | 5 | 30 | |
| Dibromochloromethane | ug/L | ND | 20 | 20 | 17.3 | 17.1 | 87 | 85 | 75-125 | 1 | 30 | |
| Dibromomethane | ug/L | ND | 20 | 20 | 18.9 | 19.2 | 94 | 96 | 66-133 | 2 | 30 | |
| Dichlorodifluoromethane | ug/L | ND | 20 | 20 | 21.9 | 22.3 | 109 | 112 | 74-150 | 2 | 30 | |
| Dichlorofluoromethane | ug/L | ND | 20 | 20 | 20.2 | 20.4 | 101 | 102 | 68-150 | 1 | 30 | |
| Diethyl ether (Ethyl ether) | ug/L | ND | 20 | 20 | 16.6 | 17.2 | 83 | 86 | 57-148 | 3 | 30 | |
| Ethylbenzene | ug/L | ND | 20 | 20 | 18.6 | 18.9 | 93 | 95 | 67-149 | 2 | 30 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 20 | 20 | 18.3 | 20.5 | 91 | 102 | 65-143 | 11 | 30 | |
| Isopropylbenzene (Cumene) | ug/L | ND | 20 | 20 | 19.8 | 20.2 | 99 | 101 | 64-150 | 2 | 30 | |
| Methyl-tert-butyl ether | ug/L | ND | 20 | 20 | 17.6 | 18.0 | 88 | 90 | 71-130 | 2 | 30 | |
| Methylene Chloride | ug/L | ND | 20 | 20 | 16.3 | 16.3 | 82 | 81 | 67-137 | 0 | 30 | |
| n-Butylbenzene | ug/L | ND | 20 | 20 | 19.8 | 21.3 | 99 | 106 | 70-138 | 7 | 30 | |
| n-Propylbenzene | ug/L | ND | 20 | 20 | 19.2 | 19.7 | 96 | 98 | 70-148 | 2 | 30 | |
| Naphthalene | ug/L | ND | 20 | 20 | 16.5 | 18.3 | 83 | 91 | 39-150 | 10 | 30 | |
| p-Isopropyltoluene | ug/L | ND | 20 | 20 | 19.4 | 20.0 | 97 | 100 | 74-138 | 3 | 30 | |
| sec-Butylbenzene | ug/L | ND | 20 | 20 | 19.4 | 20.3 | 97 | 102 | 64-150 | 5 | 30 | |
| Styrene | ug/L | ND | 20 | 20 | 18.7 | 18.8 | 94 | 94 | 75-132 | 0 | 30 | |
| tert-Butylbenzene | ug/L | ND | 20 | 20 | 18.7 | 19.6 | 93 | 98 | 75-138 | 5 | 30 | |
| Tetrachloroethene | ug/L | ND | 20 | 20 | 19.6 | 19.9 | 98 | 100 | 73-136 | 2 | 30 | |
| Tetrahydrofuran | ug/L | ND | 200 | 200 | 181 | 184 | 91 | 92 | 68-142 | 2 | 30 | |
| Toluene | ug/L | ND | 20 | 20 | 19.7 | 19.4 | 99 | 97 | 69-139 | 2 | 30 | |
| trans-1,2-Dichloroethene | ug/L | ND | 20 | 20 | 18.4 | 18.6 | 92 | 93 | 75-135 | 1 | 30 | |
| trans-1,3-Dichloropropene | ug/L | ND | 20 | 20 | 17.8 | 17.6 | 89 | 88 | 66-136 | 1 | 30 | |
| Trichloroethene | ug/L | ND | 20 | 20 | 18.5 | 18.7 | 92 | 93 | 74-135 | 1 | 30 | |
| Trichlorofluoromethane | ug/L | ND | 20 | 20 | 23.9 | 24.4 | 120 | 122 | 75-150 | 2 | 30 | |
| Vinyl chloride | ug/L | ND | 20 | 20 | 20.8 | 21.5 | 104 | 108 | 69-150 | 3 | 30 | |
| Xylene (Total) | ug/L | ND | 60 | 60 | 57.2 | 57.9 | 95 | 97 | 70-147 | 1 | 30 | |
| 1,2-Dichloroethane-d4 (S) | %. | | | | | | 105 | 107 | 75-125 | | | |
| 4-Bromofluorobenzene (S) | %. | | | | | | 101 | 102 | 75-125 | | | |
| Toluene-d8 (S) | %. | | | | | | 105 | 102 | 75-125 | | | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA

Project: 34160024 Tower Standard
Pace Project No.: 10343074

QC Batch: WETA/26735 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10343074001, 10343074002, 10343074003

METHOD BLANK: 2220411 Matrix: Water
Associated Lab Samples: 10343074001, 10343074002, 10343074003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrate as N | mg/L | ND | 0.17 | 03/31/16 11:01 | |
| Sulfate | mg/L | ND | 2.0 | 03/31/16 11:01 | |

LABORATORY CONTROL SAMPLE: 2220412

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrate as N | mg/L | 1 | 0.96 | 96 | 90-110 | |
| Sulfate | mg/L | 12.5 | 12.2 | 97 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2220413 2220414

| Parameter | Units | 10342971002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | mg/L | <0.050 | 1 | 1 | 0.96 | 0.95 | 96 | 95 | 90-110 | 0 | 20 | |
| Sulfate | mg/L | <0.60 | 12.5 | 12.5 | 12.1 | 12.1 | 97 | 97 | 90-110 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2220415 2220416

| Parameter | Units | 10342478001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | mg/L | 2.9 | 1 | 1 | 3.6 | 3.6 | 68 | 68 | 90-110 | 0 | 20 | M1 |
| Sulfate | mg/L | 29.8 | 12.5 | 12.5 | 38.7 | 38.8 | 71 | 72 | 90-110 | 0 | 20 | M1 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALIFIERS

Project: 34160024 Tower Standard
Pace Project No.: 10343074

## 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.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-M | Pace Analytical Services - Minneapolis |

## ANALYTE QUALIFIERS

| | |
|---|---|
| B | Analyte was detected in the associated method blank. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

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

# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 34160024 Tower Standard
Pace Project No.: 10343074

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10343074001** | **16TSGW01** | EPA 3010 | MPRP/62316 | EPA 6010C | ICP/27294 |
| **10343074002** | **16TSGW02** | EPA 3010 | MPRP/62316 | EPA 6010C | ICP/27294 |
| **10343074003** | **16TSGW03** | EPA 3010 | MPRP/62316 | EPA 6010C | ICP/27294 |
| **10343074001** | **16TSGW01** | EPA 8260B | MSV/35116 | | |
| **10343074002** | **16TSGW02** | EPA 8260B | MSV/35116 | | |
| **10343074003** | **16TSGW03** | EPA 8260B | MSV/35116 | | |
| **10343074004** | **16TSTB01** | EPA 8260B | MSV/35116 | | |
| **10343074001** | **16TSGW01** | EPA 300.0 | WETA/26735 | | |
| **10343074002** | **16TSGW02** | EPA 300.0 | WETA/26735 | | |
| **10343074003** | **16TSGW03** | EPA 300.0 | WETA/26735 | | |



This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

PACE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

10343074


11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210


# CHAIN OF CUSTODY REPORT

**Work Order #:**

CLIENT: Bristol Environmental

REPORT TO: Matt Faust
ADDRESS: 111 W. 16th Ave, Ste 301
Anchorage, AK 99501
PHONE: (907)563-0013 FAX: (907)563-6713

INVOICE TO: Same

P.O. NUMBER: 34160024

PROJECT NAME: Tower standard
PROJECT NUMBER: 34160024
SAMPLED BY: M Faust & L Kleppin

**TURNAROUND REQUEST** in Business Days *

Organic & Inorganic Analyses: [X] STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: [X] STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: HCl | $H_2SO_4$ | | $HNO_3$

REQUESTED ANALYSES

| | CLIENT SAMPLE IDENTIFICATION | SAMPLING DATE/TIME | VOCs 8260 | Sulfate 300.0 | Nitrate 300.0 | Mn, Fe | | | | | | | | | MATRIX (W, S, O) | # OF CONT. | LOCATION/ COMMENTS | TA WO ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16TSGW01 | 3/29 @ 1030 | X | X | X | X | | | | | | | | | W | 18 | | 001 |
| 2 | 16TSGW02 | 3/29 @ 1245 | X | X | X | X | | | | | | | | | W | 6 | | 002 |
| 3 | 16TSGW03 | 3/29 @ 1300 | X | X | X | X | | | | | | | | | W | 6 | | 003 |
| 4 | 16TSTB01 | 3/29 @ 1030 | X | | | | | | | | | | | | W | 1 | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| RELEASED BY: [signature] | DATE: 3/30 | RECEIVED BY: [signature] | DATE: 3/30/14 |
| PRINT NAME: Matt Faust | FIRM: Bristol | TIME: 0900 | PRINT NAME: Bob Michels | FIRM: Pace | TIME: 10:55 |
| RELEASED BY: | DATE: | RECEIVED BY: | DATE: |
| PRINT NAME: | FIRM: | TIME: | PRINT NAME: | FIRM: | TIME: |

ADDITIONAL REMARKS:

TEMP: 1.4

PAGE OF

TAL-1000(0408)

| Pace Analytical | Document Name: **Sample Condition Upon Receipt Form** | Document Revised: 05Jan2016 Page 1 of 1 |
|---|---|---|
| | Document No.: **F-MN-L-213-rev.15** | Issuing Authority: Pace Minnesota Quality Office |

**Sample Condition Upon Receipt**

**Client Name:** Bristol Environmental

**Project #:** WO#: 10343074

10343074

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

**Tracking Number:** _____

**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:** ☐ 151401163 ☑ B88A912167504 ☐ 151401164 ☐ B88A0143310098

**Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

**Cooler Temp Read (°C):** 1.5 **Cooler Temp Corrected (°C):** 1.4 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** -0.1 **Date and Initials of Person Examining Contents:** KAC 3.30.16

**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 WA (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. ☑ $HNO_3$ 3/3 1/1 ☑ $H_2SO_4$ 3/3 1/1 ☐ NaOH ☐ 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: KAC 3.30.16 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): 7994 | | | | |

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

Person Contacted: Matt Faust Date/Time: 3/30/16

Comments/Resolution: run RCRA list as well as Fe and Mn?

**Project Manager Review:** Shannon Davis **Date:** 3/30/16

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).