# Twin Disc, Inc.
# 2017 Annual Monitoring Results
**Plant 3 Coolant Release**

Subject Property
Twin Disc, Inc.
4600 21st Street
Racine, WI 53405
FID #252007140
BRRTS: 02-52-378657

April 25, 2017

Prepared by:

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I, Edwin E. Raymond, hereby certify that I am a hydrogeologist as that term is defined under s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

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# Preface

Environmental Audits, Inc. (EA) has exercised reasonable efforts to accomplish the required tasks for the **"Twin Disc, Inc. 2017 Annual Monitoring Results Plant 3 Coolant Release"**. EA has employed the professional standards applicable to the environmental consulting field today.

The information required for the **"Twin Disc, Inc. 2017 Annual Monitoring Results Plant 3 Coolant Release"** has been provided to Environmental Audits, Inc. by Twin Disc, Inc. management. This work was accomplished within time and budget limitations. More definitive conclusions may be desired than are warranted by the facts available under these constraints. The conclusions stated in this report are intended for guidance.

WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Further, the information provided in this report is not to be construed as legal advice or a recommendation as to a course of action unless explicitly stated.

## I) Purpose

The primary purpose of this report is to document the groundwater chemistry for the Coolant Release Area Groundwater Monitoring wells CR-1, CR-2, CR-3, CR-4, and CR-5. Twin Disc, Inc. installed a “French Drain” recovery system during June 2009 to enhance the tramp coolant recovery effort.

The purpose of this submittal is to provide an Annual Report or Update per the requirements of s. NR 724.13(e) describing the results of the previous four (4) quarters of groundwater sampling at the Twin Disc, Inc. Plant 3 manufacturing site as a result of a waste coolant release reported to the WDNR on October 22, 2002, FID #2252007140, BRRTS: 02-52-378657. This report deals with the results obtained over the previous year of quarterly analysis performed on the groundwater monitoring wells, commencing during August 2016. The quarterly groundwater-sampling rounds consisted of sampling the five (5) s. NR 141 Groundwater Monitoring Wells.

Monitoring wells CR-4 and CR-5 were constructed on November 17, 2014 as a response to SERTS Spill ID: 20140630SE52-1 (BRRTS: 02-52-562650), initially reported to the WNDR on June 30, 2014. A separate report detailing the monitoring well installation and initial groundwater chemistry was prepared as a “stand alone” document.

The previously submitted documents are incorporated into this document by reference.

## INTRODUCTION

Groundwater monitoring wells CR-1, CR-2, CR-3, CR-4, and CR-5 were developed in accordance to the procedures detailed in s. NR 141. Groundwater monitoring wells were developed in accordance to the procedures detailed in s. NR 141. Groundwater monitoring well samples, obtained for laboratory analysis, were placed in appropriately preserved sample containers immediately after being collected. Groundwater monitoring well samples were cooled to 4 degrees Celsius by placing the samples in a container and surrounding them with ice. Groundwater monitoring well sample containers were filled to the maximum extent possible to reduce headspace and the possible loss of volatile hydrocarbons. All VOC samples were preserved with a 1:1 addition of hydrochloric acid.

Groundwater monitoring well samples were transported, under Chain of Custody, to Pace Analytical Services, Inc., 1241 Bellevue Street - Suite 9, Green Bay, WI 54302, WDNR Certification Number 405132750, and analyzed for Volatile Organic Compounds (VOC), EPA 8260. Please see Appendix III for groundwater monitoring well sample Chain of Custody.

## Groundwater Analytical Results

## Diesel Range Organics - WDNR DRO

| Sample Description | 2nd 17 | 1st 17 | 4th 16 | 3rd 16 | 2nd 16 |
|---|---|---|---|---|---|
| CR-1 | NTF | NTF | NTF | NTF | 0.63 |
| CR-2 | NTF | NTF | NTF | NTF | 0.32 |
| CR-3 | NTF | NTF | NTF | NTF | 61.9 |
| CR-4 | NTF | NTF | NTF | NTF | 0.96 |
| CR-5 | NTF | NTF | NTF | NTF | 1.2 |

All DRO results are in units of mg/L.

DRO sampling was discontinued as a regular analytical parameter as of the 2nd Quarter 2016 groundwater analysis.

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## Petroleum Volatile Organic Compounds (EPA 8260)

Groundwater analytical results are as follows. Sample results exceeding the appropriate s. NR 140 Enforcement Standard (ES) or Preventative Action Limit (PAL) are highlighted. All Petroleum Volatile Organic Compounds reported are in units of ug/l.

Pace Analytical Services, Inc., 1241 Bellevue Street - Suite 9, Green Bay, WI 54302, WDNR Certification Number 405132750, analyzed these monitoring well samples for Volatile Organic Compounds, utilizing USEPA Method SW8260B/SW5030A. Results of these analyses are as follows:

**Groundwater Well CR-1**

| **Sample Description** | **Apr-17** | **Feb-17** | **Nov-16** | **Aug-16** | **NR 140 ES** | **NR 140 PAL** |
|---|---|---|---|---|---|---|
| Acetone | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Bromodichloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 0.6 ug/l | 0.06 ug/l |
| Bromoform | <0.50 | <0.50 | <0.50 | <0.50 | 4.4 ug/l | 0.44 ug/l |
| Bromomethane | <2.4 | <2.4 | <2.4 | <2.4 | 10 ug/l | 1 ug/l |
| Carbon Disulfide | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Carbon Tetrachloride | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Chlorobenzene | <0.50 | <0.50 | <0.50 | <0.50 | NS | NS |
| Chloroethane | <0.37 | <0.37 | <0.37 | <0.37 | 400 ug/l | 80 ug/l |
| Chloroform | <2.5 | <2.5 | <2.5 | <2.5 | 6 ug/l | 0.6 ug/l |
| Chloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 3 ug/l | 0.3 ug/l |
| Dibromochloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 60 ug/l | 6 ug/l |
| 1,2-Dibromo-3-chloropropane | <2.2 | <2.2 | <2.2 | <2.2 | 0.2 ug/l | 0.02 ug/l |
| 1,2-Dibromomethane | <0.18 | <0.18 | <0.18 | <0.18 | NS | NS |
| 1,1-Dichloroethane | 0.39 J | <0.24 | 0.47 J | 0.38 J | 850 ug/l | 85 ug/l |
| 1,2-Dichloroethane | <0.17 | <0.17 | <0.17 | <0.17 | 5 ug/l | 0.5 ug/l |
| 1,1-Dichloroethene | <0.41 | <0.41 | <0.41 | <0.41 | 7 ug/l | 0.7 ug/l |
| cis-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 70 ug/l | 7 ug/l |
| trans-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 100 ug/l | 20 ug/l |
| 1,2-Dichloropropane | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Ethyl Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 700 ug/l | 140 ug/l |
| 2-Hexanone | NTF | NTF | NTF | NTF | NS | NS |
| Methylene Chloride | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Methyl-tert-Butylether | <0.17 | <0.17 | <0.17 | <0.17 | 60 ug/l | 6 ug/l |
| Styrene | <0.50 | <0.50 | <0.50 | <0.50 | 100 ug/l | 10 ug/l |
| 1,1,2,2-Tetrachloroethane | <0.25 | <0.25 | <0.25 | <0.25 | 0.2 ug/l | 0.02 ug/l |
| Tetrachloroethene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Toluene | <0.50 | <0.50 | <0.50 | <0.50 | 1 mg/l | 0.2 mg/l |
| 1,1,1-Trichloroethane | <0.50 | <0.50 | <0.50 | <0.50 | 200 ug/l | 40 ug/l |
| 1,1,2-Trichloroethane | <0.16 | <0.16 | <0.16 | <0.16 | 5 ug/l | 0.5 ug/l |
| Trichloroethene | 0.55 J | <0.33 | 0.93 J | 0.80 J | 5 ug/l | 0.5 ug/l |
| Vinyl Chloride | <0.18 | <0.18 | <0.18 | <0.18 | 0.2 ug/l | 0.02 ug/l |
| Total Xylenes | <1.50 | <1.50 | <1.50 | <1.50 | 10 mg/l | 1 mg/l |

VOCs reported in units of ug/l

B: Analyte detected in the associated Method Blank

J: Analyte detected below quanitiation limits

NTF: Not Tested For

**Groundwater Well CR-2**

| Sample Description | Apr-17 | Feb-17 | Nov-16 | Aug-16 | NR 140 ES | NR 140 PAL |
|---|---|---|---|---|---|---|
| Acetone | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Bromodichloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 0.6 ug/l | 0.06 ug/l |
| Bromoform | <0.50 | <0.50 | <0.50 | <0.50 | 4.4 ug/l | 0.44 ug/l |
| Bromomethane | <2.4 | <2.4 | <2.4 | <2.4 | 10 ug/l | 1 ug/l |
| Carbon Disulfide | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Carbon Tetrachloride | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Chlorobenzene | <0.50 | <0.50 | <0.50 | <0.50 | NS | NS |
| Chloroethane | <0.37 | <0.37 | <0.37 | <0.37 | 400 ug/l | 80 ug/l |
| Chloroform | <2.5 | <2.5 | <2.5 | <2.5 | 6 ug/l | 0.6 ug/l |
| Chloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 3 ug/l | 0.3 ug/l |
| Dibromochloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 60 ug/l | 6 ug/l |
| 1,2-Dibromo-3-chloropropane | <2.2 | <2.2 | <2.2 | <2.2 | 0.2 ug/l | 0.02 ug/l |
| 1,2-Dibromomethane | <0.16 | <0.16 | <0.16 | <0.16 | NS | NS |
| 1,1-Dichloroethane | 2.0 | 2.1 | 2.1 | 1.0 | 850 ug/l | 85 ug/l |
| 1,2-Dichloroethane | <0.17 | <0.17 | <0.17 | <0.17 | 5 ug/l | 0.5 ug/l |
| 1,1-Dichloroethene | <0.41 | <0.41 | <0.41 | <0.41 | 7 ug/l | 0.7 ug/l |
| cis-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 70 ug/l | 7 ug/l |
| trans-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 100 ug/l | 20 ug/l |
| 1,2-Dichloropropane | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Ethyl Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 700 ug/l | 140 ug/l |
| 2-Hexanone | NTF | NTF | NTF | NTF | NS | NS |
| Methylene Chloride | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Methyl-tert-Butylether | <0.17 | <0.17 | <0.17 | <0.17 | 60 ug/l | 6 ug/l |
| Styrene | <0.50 | <0.50 | <0.50 | <0.50 | 100 ug/l | 10 ug/l |
| 1,1,2,2-Tetrachloroethane | <0.25 | <0.25 | <0.25 | <0.25 | 0.2 ug/l | 0.02 ug/l |
| Tetrachloroethene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Toluene | <0.50 | <0.50 | <0.50 | <0.50 | 1 mg/l | 0.2 mg/l |
| 1,1,1-Trichloroethane | <0.50 | <0.50 | <0.50 | <0.50 | 200 ug/l | 40 ug/l |
| 1,1,2-Trichloroethane | <0.16 | <0.16 | <0.16 | <0.16 | 5 ug/l | 0.5 ug/l |
| Trichloroethene | <0.33 | <0.33 | <0.33 | <0.33 | 5 ug/l | 0.5 ug/l |
| Vinyl Chloride | <0.18 | <0.18 | <0.18 | <0.18 | 0.2 ug/l | 0.02 ug/l |
| Total Xylenes | <1.50 | <1.50 | <1.50 | <1.50 | 10 mg/l | 1 mg/l |

VOCs reported in units of ug/l

B: Analyte detected in the associated Method Blank

J: Analyte detected below quanitiation limits

NTF: Not Tested For

**Groundwater Well CR-3**

| Sample Description | Apr-17 | Feb-17 | Nov-16 | Aug-16 | NR 140 ES | NR 140 PAL |
|---|---|---|---|---|---|---|
| Acetone | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Benzene | <500 | <500 | <500 | <500 | 5 ug/l | 0.5 ug/l |
| Bromodichloromethane | <500 | <500 | <500 | <500 | 0.6 ug/l | 0.06 ug/l |
| Bromoform | <500 | <500 | <500 | <500 | 4.4 ug/l | 0.44 ug/l |
| Bromomethane | <2430 | <2430 | <2430 | <2430 | 10 ug/l | 1 ug/l |
| Carbon Disulfide | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Carbon Tetrachloride | <500 | <500 | <500 | <500 | 5 ug/l | 0.5 ug/l |
| Chlorobenzene | <500 | <500 | <500 | <500 | NS | NS |
| Chloroethane | **36700** | **28500** | **20800** | **18900** | 400 ug/l | 80 ug/l |
| Chloroform | <2500 | <2500 | <2500 | <2500 | 6 ug/l | 0.6 ug/l |
| Chloromethane | <500 | <500 | <500 | <500 | 3 ug/l | 0.3 ug/l |
| Dibromochloromethane | <500 | <500 | <500 | <500 | 60 ug/l | 6 ug/l |
| 1,2-Dibromo-3-chloropropane | <2160 | <2160 | <2160 | <2160 | 0.2 ug/l | 0.02 ug/l |
| 1,2-Dibromomethane | <178 | <178 | <178 | <178 | NS | NS |
| 1,1-Dichloroethane | **115000** | **98900** | **84600** | **101000** | 850 ug/l | 85 ug/l |
| 1,2-Dichloroethane | <168 | <168 | <168 | <168 | 5 ug/l | 0.5 ug/l |
| 1,1-Dichloroethene | **5520** | **4150** | **4030** | **4880** | 7 ug/l | 0.7 ug/l |
| cis-1,2-Dichloroethene | <256 | <256 | <256 | <256 | 70 ug/l | 7 ug/l |
| trans-1,2-Dichloroethene | <257 | <257 | <257 | <257 | 100 ug/l | 20 ug/l |
| 1,2-Dichloropropane | <233 | <233 | <233 | <233 | 5 ug/l | 0.5 ug/l |
| Ethyl Benzene | <500 | <500 | <500 | <500 | 700 ug/l | 140 ug/l |
| 2-Hexanone | NTF | NTF | NTF | NTF | NS | NS |
| Methylene Chloride | <233 | <233 | **656 J** | **320 J** | 5 ug/l | 0.5 ug/l |
| Methyl-tert-Butylether | <174 | <174 | <174 | <174 | 60 ug/l | 6 ug/l |
| Napthalene | <2500 | <2500 | <2500 | <2500 | 40 ug/l | 8 ug/l |
| Styrene | <500 | <500 | <500 | <500 | 100 ug/l | 10 ug/l |
| 1,1,2,2-Tetrachloroethane | <249 | <249 | <249 | <249 | 0.2 ug/l | 0.02 ug/l |
| Tetrachloroethene | <500 | <500 | <500 | <500 | 5 ug/l | 0.5 ug/l |
| Toluene | <500 | <500 | <500 | <500 | 1 mg/l | 0.2 mg/l |
| 1,1,1-Trichloroethane | **38400** | **31300** | **35100** | **33500** | 200 ug/l | 40 ug/l |
| 1,1,2-Trichloroethane | <197 | <197 | <197 | <197 | 5 ug/l | 0.5 ug/l |
| Trichloroethene | <331 | <331 | <331 | <331 | 5 ug/l | 0.5 ug/l |
| Vinyl Chloride | **5780** | **3770** | **3460** | **3560** | 0.2 ug/l | 0.02 ug/l |
| Total Xylenes | <1500 | <1500 | <1500 | <1500 | 10 mg/l | 1 mg/l |

VOCs reported in units of ug/l

B: Analyte detected in the associated Method Blank

E: Estimated

J: Analyte detected below quanitiation limits

NTF: Not Tested For

**Groundwater Well CR-4**

| **Sample Description** | **Apr-17** | **Feb-17** | **Nov-16** | **Aug-16** | **NR 140 ES** | **NR 140 PAL** |
|---|---|---|---|---|---|---|
| Acetone | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Bromodichloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 0.6 ug/l | 0.06 ug/l |
| Bromoform | <0.50 | <0.50 | <0.50 | <0.50 | 4.4 ug/l | 0.44 ug/l |
| Bromomethane | <2.4 | <2.4 | <2.4 | <2.4 | 10 ug/l | 1 ug/l |
| Carbon Disulfide | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Carbon Tetrachloride | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Chlorobenzene | <0.50 | <0.50 | <0.50 | <0.50 | NS | NS |
| Chloroethane | <0.37 | <0.37 | <0.37 | <0.37 | 400 ug/l | 80 ug/l |
| Chloroform | <2.5 | <2.5 | <2.5 | <2.5 | 6 ug/l | 0.6 ug/l |
| Chloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 3 ug/l | 0.3 ug/l |
| Dibromochloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 60 ug/l | 6 ug/l |
| 1,2-Dibromo-3-chloropropane | <2.2 | <2.2 | <2.2 | <2.2 | 0.2 ug/l | 0.02 ug/l |
| 1,2-Dibromomethane | <0.16 | <0.16 | <0.16 | <0.16 | NS | NS |
| 1,1-Dichloroethane | <0.24 | <0.24 | <0.24 | <0.24 | 850 ug/l | 85 ug/l |
| 1,2-Dichloroethane | <0.17 | <0.17 | <0.17 | <0.17 | 5 ug/l | 0.5 ug/l |
| 1,1-Dichloroethene | <0.41 | <0.41 | <0.41 | <0.41 | 7 ug/l | 0.7 ug/l |
| cis-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 70 ug/l | 7 ug/l |
| trans-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 100 ug/l | 20 ug/l |
| 1,2-Dichloropropane | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Ethyl Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 700 ug/l | 140 ug/l |
| 2-Hexanone | NTF | NTF | NTF | NTF | NS | NS |
| Methylene Chloride | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Methyl-tert-Butylether | <0.17 | <0.17 | <0.17 | <0.17 | 60 ug/l | 6 ug/l |
| Napthalene | <2.6 | <2.6 | <2.6 | <2.6 | 40 ug/l | 8 ug/l |
| Styrene | <0.50 | <0.50 | <0.50 | <0.50 | 100 ug/l | 10 ug/l |
| 1,1,2,2-Tetrachloroethane | <0.25 | <0.25 | <0.25 | <0.25 | 0.2 ug/l | 0.02 ug/l |
| Tetrachloroethene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Toluene | <0.50 | <0.50 | <0.50 | <0.50 | 1 mg/l | 0.2 mg/l |
| 1,2,4- Trimethylbenzene | <0.50 | <0.50 | <0.50 | <0.50 | 70 ug/l | 7 ug/l |
| 1,1,1-Trichloroethane | <0.50 | <0.50 | <0.50 | <0.50 | 200 ug/l | 40 ug/l |
| 1,1,2-Trichloroethane | <0.16 | <0.16 | <0.16 | <0.16 | 5 ug/l | 0.5 ug/l |
| Trichloroethene | <0.33 | <0.33 | <0.33 | <0.33 | 5 ug/l | 0.5 ug/l |
| Vinyl Chloride | <0.18 | <0.18 | <0.18 | <0.18 | 0.2 ug/l | 0.02 ug/l |
| Total Xylenes | <1.50 | <1.50 | <1.50 | <1.50 | 10 mg/l | 1 mg/l |

VOCs reported in units of ug/l

B: Analyte detected in the associated Method Blank

J: Analyte detected below quanitiation limits

NTF: Not Tested For

**Groundwater Well CR-5**

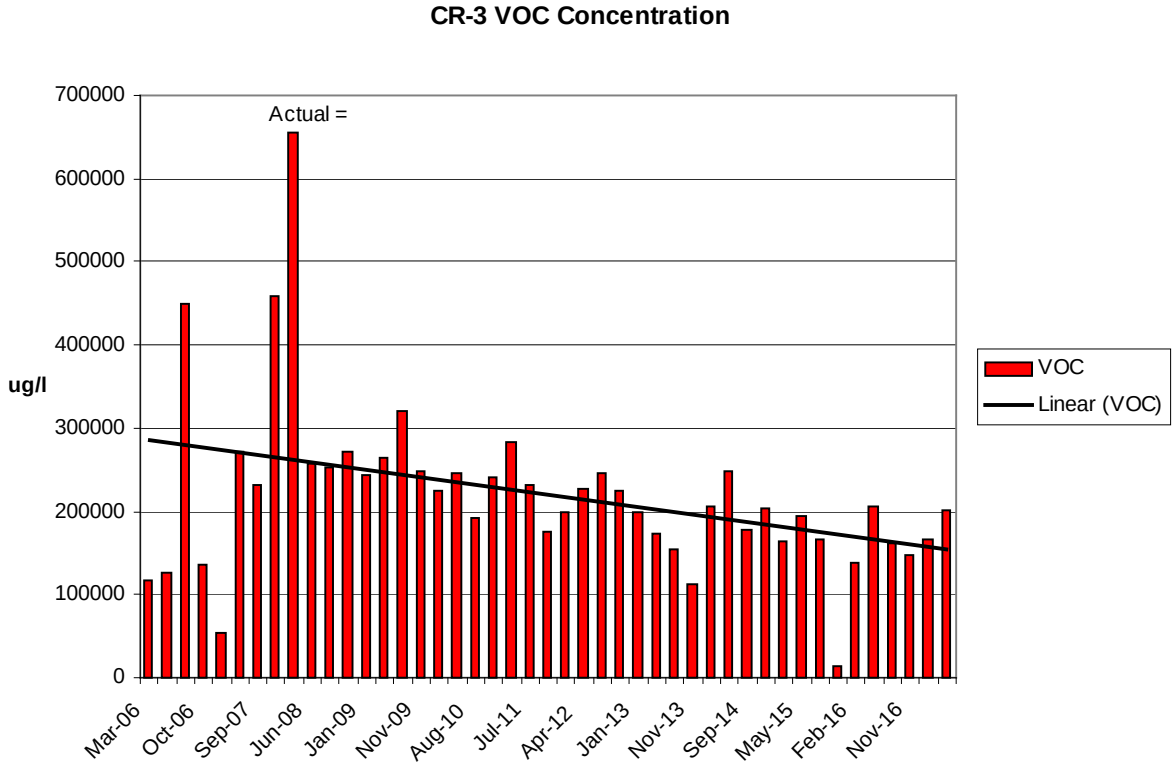
| **Sample Description** | **Apr-17** | **Feb-17** | **Nov-16** | **Aug-16** | **NR 140 ES** | **NR 140 PAL** |
|---|---|---|---|---|---|---|
| Acetone | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Bromodichloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 0.6 ug/l | 0.06 ug/l |
| Bromoform | <0.50 | <0.50 | <0.50 | <0.50 | 4.4 ug/l | 0.44 ug/l |
| Bromomethane | <2.4 | <2.4 | <2.4 | <2.4 | 10 ug/l | 1 ug/l |
| Carbon Disulfide | NTF | NTF | NTF | NTF | 1000 ug/l | 200 ug/l |
| Carbon Tetrachloride | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Chlorobenzene | <0.50 | <0.50 | <0.50 | <0.50 | NS | NS |
| Chloroethane | <0.37 | <0.37 | <0.37 | <0.37 | 400 ug/l | 80 ug/l |
| Chloroform | <2.5 | <2.5 | <2.5 | <2.5 | 6 ug/l | 0.6 ug/l |
| Chloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 3 ug/l | 0.3 ug/l |
| Dibromochloromethane | <0.50 | <0.50 | <0.50 | <0.50 | 60 ug/l | 6 ug/l |
| 1,2-Dibromo-3-chloropropane | <2.2 | <2.2 | <2.2 | <2.2 | 0.2 ug/l | 0.02 ug/l |
| 1,2-Dibromomethane | <0.16 | <0.16 | <0.16 | <0.16 | NS | NS |
| 1,1-Dichloroethane | <0.24 | <0.24 | <0.24 | <0.24 | 850 ug/l | 85 ug/l |
| 1,2-Dichloroethane | <0.17 | <0.17 | <0.17 | <0.17 | 5 ug/l | 0.5 ug/l |
| 1,1-Dichloroethene | <0.41 | <0.41 | <0.41 | <0.41 | 7 ug/l | 0.7 ug/l |
| cis-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 70 ug/l | 7 ug/l |
| trans-1,2-Dichloroethene | <0.26 | <0.26 | <0.26 | <0.26 | 100 ug/l | 20 ug/l |
| 1,2-Dichloropropane | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Ethyl Benzene | <0.50 | <0.50 | <0.50 | <0.50 | 700 ug/l | 140 ug/l |
| 2-Hexanone | NTF | NTF | NTF | NTF | NS | NS |
| Methylene Chloride | <0.23 | <0.23 | <0.23 | <0.23 | 5 ug/l | 0.5 ug/l |
| Methyl-tert-Butylether | <0.17 | <0.17 | <0.17 | <0.17 | 60 ug/l | 6 ug/l |
| Styrene | <0.50 | <0.50 | <0.50 | <0.50 | 100 ug/l | 10 ug/l |
| 1,1,2,2-Tetrachloroethane | <0.25 | <0.25 | <0.25 | <0.25 | 0.2 ug/l | 0.02 ug/l |
| Tetrachloroethene | <0.50 | <0.50 | <0.50 | <0.50 | 5 ug/l | 0.5 ug/l |
| Toluene | <0.50 | <0.50 | <0.50 | <0.50 | 1 mg/l | 0.2 mg/l |
| 1,1,1-Trichloroethane | <0.50 | <0.50 | <0.50 | <0.50 | 200 ug/l | 40 ug/l |
| 1,1,2-Trichloroethane | <0.16 | <0.16 | <0.16 | <0.16 | 5 ug/l | 0.5 ug/l |
| Trichloroethene | <0.33 | <0.33 | <0.33 | <0.33 | 5 ug/l | 0.5 ug/l |
| Vinyl Chloride | <0.18 | <0.18 | <0.18 | <0.18 | 0.2 ug/l | 0.02 ug/l |
| Total Xylenes | <1.50 | <1.50 | <1.50 | <1.50 | 10 mg/l | 1 mg/l |

VOCs reported in units of ug/l

B: Analyte detected in the associated Method Blank

J: Analyte detected below quanitiation limits

NTF: Not Tested For




## Groundwater Impacts

The groundwater results obtained from the groundwater samplings performed by Environmental Audits, Inc. at the Twin Disc, Inc. Plant 3 Coolant Release monitoring wells variously exceeded the s. NR 140.10 Public Health related groundwater standards for Acetone, Benzene, Carbon Tetrachloride, Chloroethane, Chloroform, Chloromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,1-Dichloroethane, Methylene Chloride, Naphthalene, Styrene, Tetrachloroethene, 1,1,2,2-Tetrachloroethene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, and Vinyl Chloride.

Environmental Audits, Inc. detected Chloroethane, during their October 7, 2015 sampling event, at CR-3 (36,700 ug/l). Environmental Audits, Inc. detected Chloroethane, during their February 22, 2017 sampling event, at CR-3 (28,500 ug/l).

Environmental Audits, Inc. detected Chloroethane, during their November 10, 2016 sampling event, at CR-3 (20,800 ug/l). Environmental Audits, Inc. detected Chloroethane, during their August 2, 2016 sampling event, at CR-3 (18,900 ug/l). The s. NR 140 ES for Chloroethane was exceeded at CR-3 during the Environmental Audits, Inc. August 2016, November 2016, February 2017, and April 12, 2017 sampling event.

Environmental Audits, Inc. detected 1,1-Dichloroethane, during their April 12, 2017 sampling event, at CR-1 (0.36 J ug/l), CR-2 (2.0 ug/l), and CR-3 (115,000 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethane, during their February 22, 2017 sampling event, at CR-2 (0.21ug/l) and CR-3 (98,900 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethane, during their November 10, 2016 sampling event, at CR-1 (0.47 J ug/l), CR-2 (2.1 ug/l), and CR-3 (84,600 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethane, during their August 2, 2016 sampling event, at CR-1 (0.36 J ug/l), CR-2 (1.0 ug/l), and CR-3 (101,000 ug/l). The s. NR 140 Enforcement Standard (ES) for 1,1-Dichloroethane is 850 ug/L; the Preventative Action Limit (PAL) is 85 ug/L. The s. NR 140 ES for 1,1-Dichloroethane was exceeded at CR-3 during the Environmental Audits, Inc. August 2016, November 2016, February 2017, and April 12, 2017 sampling event.

Environmental Audits, Inc. detected 1,2-Dichloroethane, during the October 7, 2015 sampling event, at CR-3 (19.0 J ug/l). The s. NR 140 Enforcement Standard (ES) for 1,2-Dichloroethane is 5 ug/L; the Preventative Action Limit (PAL) is 0.5 ug/L. The s. NR 140 ES for 1,2-Dichloroethane was exceeded at CR-3 during the Environmental Audits, Inc. October 7, 2015 sampling event.

Environmental Audits, Inc. detected 1,1-Dichloroethene, during their April 12, 2017 sampling event, at CR-3 (5,520 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethene, during their February 22, 2017 sampling event, at CR-3 (4,150 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethene, during their November 10, 2016 sampling event, at CR-3 (4,060 ug/l). Environmental Audits, Inc. detected 1,1-Dichloroethene, during their August 2, 2016 sampling event, at CR-3 (4,860 ug/l). The s. NR 140 Enforcement Standard (ES) for 1,1-Dichloroethene is 7 ug/L; the Preventative Action Limit (PAL) is 0.7 ug/L. The s. NR 140 ES for 1,1-Dichloroethene was exceeded at CR-3 during the Environmental Audits, Inc. August 2016, November 2016, February 2017, and April 12, 2017 sampling event.

Environmental Audits, Inc. detected Methylene Chloride, during their November 10, 2016 sampling event, at CR-3 (656 J ug/l). Environmental Audits, Inc. detected Methylene Chloride, during their August 2, 2016 sampling event, at CR-3 (320 J ug/l).

The PAL is 0.5 ug/l and the ES is 5 ug/l for Methylene Chloride. The s. NR 140 ES for Methylene Chloride was exceeded at CR-3 during the Environmental Audits, Inc. August 2016 and November 10, 2016 sampling event.

Environmental Audits, Inc. detected 1,1,1-Trichloroethane, during their April 12, 2017 sampling event at CR-3 (38,400 ug/l). Environmental Audits, Inc. detected 1,1,1-Trichloroethane, during their February 22, 2017 sampling event at CR-3 (31,300 ug/l). Environmental Audits, Inc. detected 1,1,1-Trichloroethane, during their November 10, 2016 sampling event at CR-3 (35,100 ug/l). Environmental Audits, Inc. detected 1,1,1-Trichloroethane, during their August 2, 2016 sampling event at CR-3 (33,500 ug/l). The s. NR 140 ES for 1,1,1-Trichloroethane is 200 ug/L; the PAL is 40 ug/L. The s. NR 140 ES for 1,1,1-Trichloroethane was exceeded at CR-3 during the Environmental Audits, Inc. August 2016, November 2016, February 2017, and April 12, 2017 sampling event.

Environmental Audits, Inc. detected Trichloroethene, during their November 10, 2016 sampling event, at CR-1 (0.93 J ug/l). Environmental Audits, Inc. detected Trichloroethene, during their August 2, 2016 sampling event, at CR-1 (0.80 J ug/l). The s. NR 140 ES for Trichloroethene is 5 ug/L; the PAL is 0.5 ug/L. The PAL was exceeded at CR-1 during the Environmental Audits August 2016 and November 10, 2016 sampling event.

Environmental Audits, Inc. detected Vinyl Chloride, during their April 12, 2017 sampling event, at CR-3 (5,780 ug/l). Environmental Audits, Inc. detected Vinyl Chloride, during their February 22, 2017 sampling event, at CR-3 (3,770 ug/l). Environmental Audits, Inc. detected Vinyl Chloride, during their November 10, 2016 sampling event, at CR-3 (3,460 ug/l). Environmental Audits, Inc. detected Vinyl Chloride, during their August 2, 2016 sampling event, at CR-3 (3,660 ug/l). The s. NR 140 ES for Vinyl Chloride is 0.2 ug/L; the PAL is 0.02 ug/L. The s. NR 140 ES for Vinyl Chloride was exceeded at CR-3 during the Environmental Audits, Inc. August 2016, November 2016, February 2017, and April 12, 2017 sampling event.

The above mentioned compounds are "daughter" compounds of 1,1,1-Trichloroethane, an indication that biological/chemical remediation may be occurring. More investigative effort is required to confirm this.

Non-halogenated compounds for which an s. NR 140 Public Health Groundwater Quality Standard ES or PAL has been established that have been detected include the following compounds:

Environmental Audits, Inc. detected Naphthalene, during their May 16, 2016 sampling event, at CR-4 (4.4 J ug/l). The PAL is 8 ug/l and the ES is 40 ug/l for Naphthalene.

1,2,4- Trimethylbenzene was detected, during the Environmental Audits May 16, 2016 sampling event, at CR-4 (1.3 ug/l). The PAL is 7 ug/land the ES is 70 ug/l for 1,2,4-Trimethylbenzene.

DRO was detected, in the Environmental Audits groundwater samples obtained on May 16, 2016 at CR-1 (0.63 mg/l), CR-2 (0.32 mg/l), CR-3 (61.9 mg/l), CR-4 (0.96 mg/l), and CR-5 (1.2 mg/l). DRO was detected, in the Environmental Audits groundwater samples obtained during the February 24, 2016 at CR-1 (1.40 mg/l), CR-2 (0.42 mg/l), CR-3 (85.3 mg/l), and CR-5 (0.13 mg/l). DRO was detected, in the Environmental Audits groundwater samples obtained during the October 7, 2015 at CR-1 (0.25 mg/l), CR-2 (1.0 mg/l), CR-3 (15.3 mg/l), CR-4 (0.44 mg/l), and CR-5 (0.021 J mg/l). DRO was detected, in the DRO was detected, in the Environmental Audits groundwater samples obtained during the July 27, 2015 at CR-1 (0.79 mg/l), CR-2 (1.6 mg/l), CR-3 (59.1 mg/l), CR-4 (0.63 mg/l), and CR-5 (0.027 J mg/l). Neither a PAL nor an ES has been established for DRO.

DRO sampling was discontinued as a regular analytical parameter as of the 2nd Quarter 2016 groundwater analysis.

**Vapor Intrusion**:

A Vapor Intrusion characterization standard was added to the NR716 Site Investigation protocol as 716.05(1) during December 2010. This protocol requires all sites exhibiting VOC/CVOC contamination to conduct a testing program to identify and quantify levels of VOC/CVOC vapors present in the subsurface soils and above surface ambient air. The intent of this new requirement is to prevent exposures that negatively impact human health in terms of excess risk per USEPA and Center for Disease Control (CDC) standards.

As a result of this new legislation, a Vapor Intrusion monitoring program must be implemented in order to obtain Site Closure.

The United States Environmental Protection Agency (USEPA) guidance “OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)” EPA530-D-02-004, dated November

2002 and the State of Wisconsin Department of Health and Family Services (WI DHFS) Division of Public Health guidance "Chemical Vapor Intrusion and Residential Indoor Air Guidance for Environmental Consultants and Contractors" dated February 13, 2003 were utilized for the evaluation of the Vapor Intrusion Pathway

To that end, Environmental Audits, Inc. placed thirty-two (32) discrete sub-slab sampling ports around and about the Twin Disc, Inc. Plant 3 facility. These sub-slab sampling ports were sampled commencing March 28, 2012 with the latest sub-slab sampling event occurring March 22, 2016.

The OSWER Draft Guidance recommends that an inhabited building generally be considered "near" subsurface contaminants if it is located within approximately 100 ft laterally or vertically of known or interpolated soil gas or groundwater contaminants.[1]

The OSWER Draft Guidance states "Petroleum hydrocarbons biodegrade relatively well in unsaturated soils. Therefore, petroleum-related VOCs generally have to be in "free product" state or groundwater very near, if not in contact with, the building foundation to result in vapor intrusion. In contrast, chlorinated solvents undergo limited biodegradation and can cause a vapor intrusion concern even when the source is a long distance away."[2]

No residences are located within 100 feet of the building proper and therefore an off-site sub-slab Vapor Intrusion investigation would not appear warranted for this Site.

The sub-slab investigation conducted to date has indicated the presence of Volatile Organic compounds beneath the Twin Disc, Inc. Plant 3 facility. Additional investigative effort is warranted to further identify the effects of seasonality on the detected compounds. Additional sample ports are warranted in the Twin Disc, Inc. Plant 3 Engineering and Human Resource offices to confirm or refute the presence of Volatile Organic Compounds in the theoretical plume beneath these office areas.
The complete summary of the Vapor Intrusion findings to date will be included as a standalone document as an Appendix to the ***"Twin Disc, Inc. 2017 Annual Monitoring Results Plant 3 Coolant Release"*** report.

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1 *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)"* EPA530-D-02-004, dated November 2002, Page 16

2 *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)"* EPA530-D-02-004, dated November 2002, Page 16

**Conclusions:**

The Site Investigation revealed that the contamination is contained in the soils and groundwater immediately around and about the Tramp Coolant Collection Sump. There is no evidence, from the soil and groundwater investigations conducted to date, that groundwater contamination has migrated off site. No additional groundwater monitoring wells appear to be required to optimize monitoring for a natural attenuation groundwater remedy.

Specific Interim Actions undertaken by Twin Disc, Inc. include the following:

a) s. NR 708.05(I), the measuring for the presence of free product, visually or through field samples or other appropriate methods. Product level readings are being taken in the monitoring wells utilizing a MMC Oil-Water Interface Detector. These readings are being taken periodically and recorded.

b) s. NR 708.11(2)(c), extracting free product, leachate or groundwater to restrict migration of a contaminate plume. Free product has been removed from CR-3 through the utilization of a mechanical pump commencing during Fall 2013.

c) A “French Drain” system was installed, during June 2009, in order to enhance the recovery of tramp coolant present in the surficial groundwater. This “French Drain” system is connected to the existing Tramp Coolant Collection Sump enabling collection and off-site treatment.

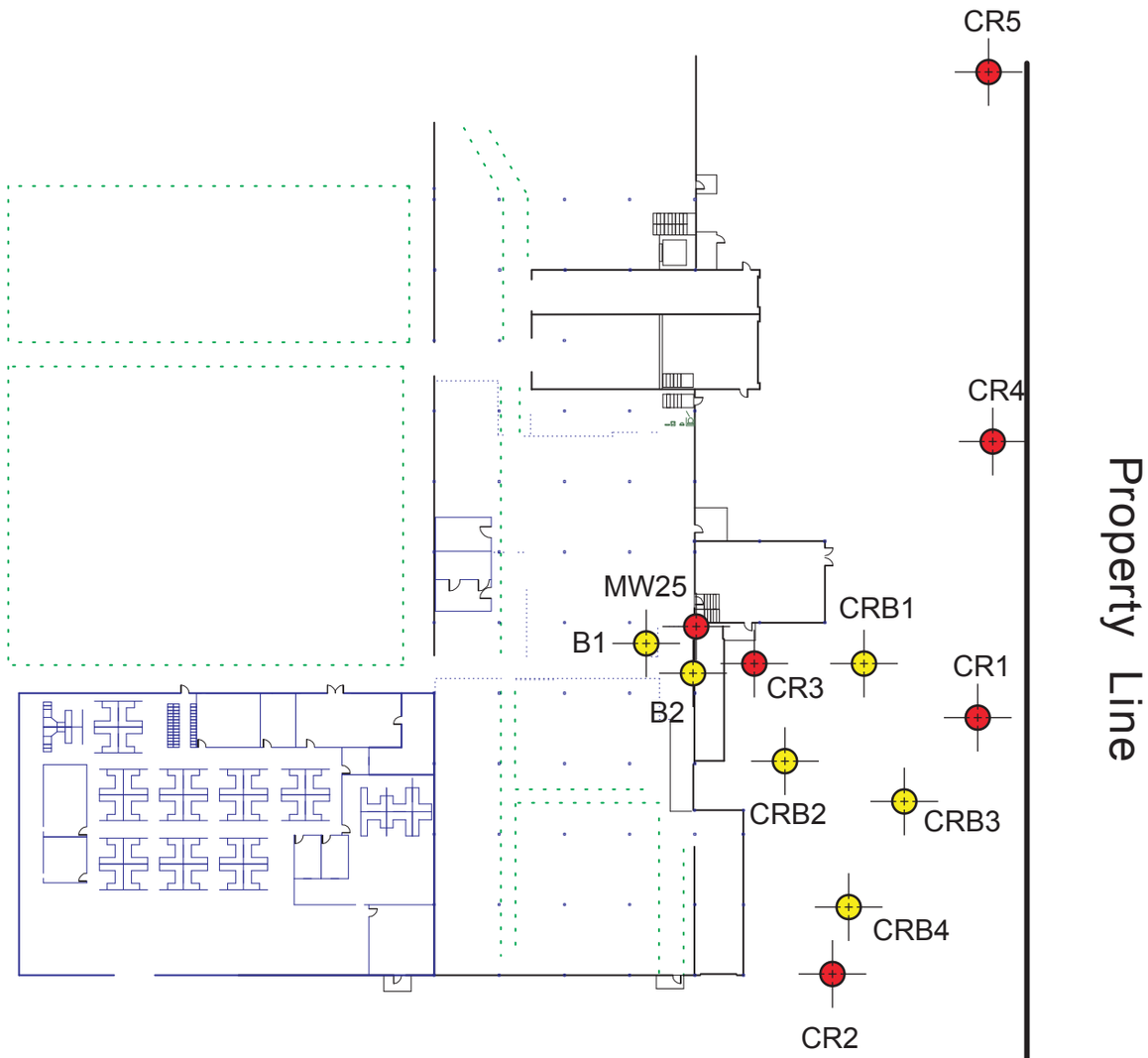
**Recommendations:**

The primary contamination pathway of concern is the surficial groundwater pathway. The Environmental Audits’ groundwater samplings indicate that several s. NR 140 Public Health Enforcement Standards and Preventative Action Limits are exceeded.

It is recommended that the five (5) monitoring wells continue to be sampled quarterly for 5DRO, GRO, and USEPA Method 8260 Volatile Organic Compounds.

The next groundwater-sampling round will occur during the 3rd Quarter 2017.

The objective is to provide effective remediation of the site in both a practical and cost efficient manner.




N
W E
S

Not To Scale

Monitoring Well Locations

Geoprobe Locations

# Twin Disc, Inc.
## Coolant Release
## Plant 3 - Level 1

Drawn on 05/03/03

Environmental Audits technical management group
120 Bishops Way ▪ Suite 130 ▪ Brookfield, WI ▪ 53005
Phone: 262.785.9322 ▪ Fax: 262.785.9323

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

March 06, 2017

Ed Raymond
Environmental Audits, Inc
1409 Hillcrest Circle
Racine, WI 53406

RE: Project: TD P3 CR
Pace Project No.: 40146033

Dear Ed Raymond:
Enclosed are the analytical results for sample(s) received by the laboratory on February 23, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Ruetz, Environmental Audits Inc

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: TD P3 CR
Pace Project No.: 40146033

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE SUMMARY

Project: TD P3 CR
Pace Project No.: 40146033

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40146033001** | **CR-1** | Water | 02/22/17 00:00 | 02/23/17 16:10 |
| **40146033002** | **CR-2** | Water | 02/22/17 00:00 | 02/23/17 16:10 |
| **40146033003** | **CR-3** | Water | 02/22/17 00:00 | 02/23/17 16:10 |
| **40146033004** | **CR-4** | Water | 02/22/17 00:00 | 02/23/17 16:10 |
| **40146033005** | **CR-5** | Water | 02/22/17 00:00 | 02/23/17 16:10 |

**Pace Analytical Services, LLC**
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## SAMPLE ANALYTE COUNT

Project: TD P3 CR
Pace Project No.: 40146033

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40146033001** | **CR-1** | EPA 8260 | LAP | 64 |
| **40146033002** | **CR-2** | EPA 8260 | LAP | 64 |
| **40146033003** | **CR-3** | EPA 8260 | LAP | 64 |
| **40146033004** | **CR-4** | EPA 8260 | HNW | 64 |
| **40146033005** | **CR-5** | EPA 8260 | HNW | 64 |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-1** **Lab ID: 40146033001** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 11:12 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 03/02/17 11:12 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 03/02/17 11:12 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 03/02/17 11:12 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 03/02/17 11:12 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 03/02/17 11:12 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 11:12 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 11:12 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 11:12 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 11:12 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 11:12 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 11:12 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 03/02/17 11:12 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 03/02/17 11:12 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 11:12 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 03/02/17 11:12 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 03/02/17 11:12 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 03/02/17 11:12 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 11:12 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 03/02/17 11:12 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 03/02/17 11:12 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 11:12 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 03/02/17 11:12 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 11:12 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 11:12 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 11:12 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-1** **Lab ID: 40146033001** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 03/02/17 11:12 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 11:12 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 11:12 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 11:12 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 03/02/17 11:12 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 11:12 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 11:12 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 11:12 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 11:12 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 11:12 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | | 03/02/17 11:12 | 460-00-4 | |
| Dibromofluoromethane (S) | 105 | % | 70-130 | | 1 | | 03/02/17 11:12 | 1868-53-7 | |
| Toluene-d8 (S) | 96 | % | 70-130 | | 1 | | 03/02/17 11:12 | 2037-26-5 | |

**Sample: CR-2** **Lab ID: 40146033002** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/03/17 15:43 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 03/03/17 15:43 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 03/03/17 15:43 | 79-00-5 | |
| 1,1-Dichloroethane | **2.1** | ug/L | 1.0 | 0.24 | 1 | | 03/03/17 15:43 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 03/03/17 15:43 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 03/03/17 15:43 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/03/17 15:43 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/03/17 15:43 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/03/17 15:43 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/03/17 15:43 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/03/17 15:43 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/03/17 15:43 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-2** **Lab ID: 40146033002** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 03/03/17 15:43 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 03/03/17 15:43 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/03/17 15:43 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 03/03/17 15:43 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 03/03/17 15:43 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 03/03/17 15:43 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/03/17 15:43 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 03/03/17 15:43 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 03/03/17 15:43 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/03/17 15:43 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 03/03/17 15:43 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/03/17 15:43 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/03/17 15:43 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/03/17 15:43 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 03/03/17 15:43 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/03/17 15:43 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/03/17 15:43 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/03/17 15:43 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 03/03/17 15:43 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/03/17 15:43 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/03/17 15:43 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/03/17 15:43 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/03/17 15:43 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/03/17 15:43 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 84 | % | 70-130 | | 1 | | 03/03/17 15:43 | 460-00-4 | |
| Dibromofluoromethane (S) | 117 | % | 70-130 | | 1 | | 03/03/17 15:43 | 1868-53-7 | |
| Toluene-d8 (S) | 85 | % | 70-130 | | 1 | | 03/03/17 15:43 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-3** **Lab ID: 40146033003** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<181** | ug/L | 1000 | 181 | 1000 | | 03/02/17 17:35 | 630-20-6 | |
| 1,1,1-Trichloroethane | **31300** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<249** | ug/L | 1000 | 249 | 1000 | | 03/02/17 17:35 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<197** | ug/L | 1000 | 197 | 1000 | | 03/02/17 17:35 | 79-00-5 | |
| 1,1-Dichloroethane | **98900** | ug/L | 1000 | 242 | 1000 | | 03/02/17 17:35 | 75-34-3 | |
| 1,1-Dichloroethene | **4150** | ug/L | 1000 | 410 | 1000 | | 03/02/17 17:35 | 75-35-4 | |
| 1,1-Dichloropropene | **<441** | ug/L | 1000 | 441 | 1000 | | 03/02/17 17:35 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2130** | ug/L | 5000 | 2130 | 1000 | | 03/02/17 17:35 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2210** | ug/L | 5000 | 2210 | 1000 | | 03/02/17 17:35 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2160** | ug/L | 5000 | 2160 | 1000 | | 03/02/17 17:35 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<178** | ug/L | 1000 | 178 | 1000 | | 03/02/17 17:35 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 95-50-1 | |
| 1,2-Dichloroethane | **<168** | ug/L | 1000 | 168 | 1000 | | 03/02/17 17:35 | 107-06-2 | |
| 1,2-Dichloropropane | **<233** | ug/L | 1000 | 233 | 1000 | | 03/02/17 17:35 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 541-73-1 | |
| 1,3-Dichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 106-46-7 | |
| 2,2-Dichloropropane | **<484** | ug/L | 1000 | 484 | 1000 | | 03/02/17 17:35 | 594-20-7 | |
| 2-Chlorotoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 95-49-8 | |
| 4-Chlorotoluene | **<214** | ug/L | 1000 | 214 | 1000 | | 03/02/17 17:35 | 106-43-4 | |
| Benzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 71-43-2 | |
| Bromobenzene | **<230** | ug/L | 1000 | 230 | 1000 | | 03/02/17 17:35 | 108-86-1 | |
| Bromochloromethane | **<340** | ug/L | 1000 | 340 | 1000 | | 03/02/17 17:35 | 74-97-5 | |
| Bromodichloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 75-27-4 | |
| Bromoform | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 75-25-2 | |
| Bromomethane | **<2430** | ug/L | 5000 | 2430 | 1000 | | 03/02/17 17:35 | 74-83-9 | |
| Carbon tetrachloride | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 56-23-5 | |
| Chlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 108-90-7 | |
| Chloroethane | **28500** | ug/L | 1000 | 375 | 1000 | | 03/02/17 17:35 | 75-00-3 | |
| Chloroform | **<2500** | ug/L | 5000 | 2500 | 1000 | | 03/02/17 17:35 | 67-66-3 | |
| Chloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 74-87-3 | |
| Dibromochloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 124-48-1 | |
| Dibromomethane | **<427** | ug/L | 1000 | 427 | 1000 | | 03/02/17 17:35 | 74-95-3 | |
| Dichlorodifluoromethane | **<224** | ug/L | 1000 | 224 | 1000 | | 03/02/17 17:35 | 75-71-8 | |
| Diisopropyl ether | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 108-20-3 | |
| Ethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2110** | ug/L | 5000 | 2110 | 1000 | | 03/02/17 17:35 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<143** | ug/L | 1000 | 143 | 1000 | | 03/02/17 17:35 | 98-82-8 | |
| Methyl-tert-butyl ether | **<174** | ug/L | 1000 | 174 | 1000 | | 03/02/17 17:35 | 1634-04-4 | |
| Methylene Chloride | **<233** | ug/L | 1000 | 233 | 1000 | | 03/02/17 17:35 | 75-09-2 | |
| Naphthalene | **<2500** | ug/L | 5000 | 2500 | 1000 | | 03/02/17 17:35 | 91-20-3 | |
| Styrene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 100-42-5 | |
| Tetrachloroethene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-3** **Lab ID: 40146033003** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 108-88-3 | |
| Trichloroethene | **<331** | ug/L | 1000 | 331 | 1000 | | 03/02/17 17:35 | 79-01-6 | |
| Trichlorofluoromethane | **<185** | ug/L | 1000 | 185 | 1000 | | 03/02/17 17:35 | 75-69-4 | |
| Vinyl chloride | **3770** | ug/L | 1000 | 176 | 1000 | | 03/02/17 17:35 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<256** | ug/L | 1000 | 256 | 1000 | | 03/02/17 17:35 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 10061-01-5 | |
| m&p-Xylene | **<1000** | ug/L | 2000 | 1000 | 1000 | | 03/02/17 17:35 | 179601-23-1 | |
| n-Butylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 104-51-8 | |
| n-Propylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 103-65-1 | |
| o-Xylene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 95-47-6 | |
| p-Isopropyltoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 03/02/17 17:35 | 99-87-6 | |
| sec-Butylbenzene | **<2190** | ug/L | 5000 | 2190 | 1000 | | 03/02/17 17:35 | 135-98-8 | |
| tert-Butylbenzene | **<180** | ug/L | 1000 | 180 | 1000 | | 03/02/17 17:35 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<257** | ug/L | 1000 | 257 | 1000 | | 03/02/17 17:35 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<230** | ug/L | 1000 | 230 | 1000 | | 03/02/17 17:35 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 84 | % | 70-130 | | 1000 | | 03/02/17 17:35 | 460-00-4 | |
| Dibromofluoromethane (S) | 109 | % | 70-130 | | 1000 | | 03/02/17 17:35 | 1868-53-7 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1000 | | 03/02/17 17:35 | 2037-26-5 | |

**Sample: CR-4** **Lab ID: 40146033004** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 13:04 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 03/02/17 13:04 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 03/02/17 13:04 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 03/02/17 13:04 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 03/02/17 13:04 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 03/02/17 13:04 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 13:04 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 13:04 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 13:04 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 13:04 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 13:04 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 13:04 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-4** **Lab ID: 40146033004** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 03/02/17 13:04 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 03/02/17 13:04 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 13:04 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 03/02/17 13:04 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 03/02/17 13:04 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 03/02/17 13:04 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 13:04 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 03/02/17 13:04 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 03/02/17 13:04 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 13:04 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 03/02/17 13:04 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 13:04 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 13:04 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 13:04 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 03/02/17 13:04 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 13:04 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 13:04 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 13:04 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 03/02/17 13:04 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 13:04 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 13:04 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 13:04 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 13:04 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 13:04 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | | 03/02/17 13:04 | 460-00-4 | |
| Dibromofluoromethane (S) | 109 | % | 70-130 | | 1 | | 03/02/17 13:04 | 1868-53-7 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1 | | 03/02/17 13:04 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-5** **Lab ID: 40146033005** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 17:53 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 03/02/17 17:53 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 03/02/17 17:53 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 03/02/17 17:53 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 03/02/17 17:53 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 03/02/17 17:53 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 17:53 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 17:53 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 17:53 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 17:53 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 17:53 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 17:53 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 03/02/17 17:53 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 03/02/17 17:53 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 17:53 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 03/02/17 17:53 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 03/02/17 17:53 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 03/02/17 17:53 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 17:53 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 03/02/17 17:53 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 03/02/17 17:53 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 03/02/17 17:53 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 03/02/17 17:53 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 03/02/17 17:53 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 17:53 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 03/02/17 17:53 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: TD P3 CR
Pace Project No.: 40146033

**Sample: CR-5** **Lab ID: 40146033005** Collected: 02/22/17 00:00 Received: 02/23/17 16:10 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 03/02/17 17:53 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 17:53 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 17:53 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 17:53 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 03/02/17 17:53 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 03/02/17 17:53 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 03/02/17 17:53 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 03/02/17 17:53 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 03/02/17 17:53 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 03/02/17 17:53 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | | 03/02/17 17:53 | 460-00-4 | |
| Dibromofluoromethane (S) | 110 | % | 70-130 | | 1 | | 03/02/17 17:53 | 1868-53-7 | |
| Toluene-d8 (S) | 95 | % | 70-130 | | 1 | | 03/02/17 17:53 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

QC Batch: 249238 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40146033001, 40146033003

METHOD BLANK: 1472065 Matrix: Water
Associated Lab Samples: 40146033001, 40146033003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 03/02/17 07:27 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 03/02/17 07:27 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 03/02/17 07:27 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 03/02/17 07:27 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 03/02/17 07:27 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 03/02/17 07:27 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 03/02/17 07:27 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 03/02/17 07:27 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 03/02/17 07:27 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 03/02/17 07:27 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 03/02/17 07:27 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 03/02/17 07:27 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 03/02/17 07:27 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 03/02/17 07:27 | |
| Benzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 03/02/17 07:27 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 03/02/17 07:27 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Bromoform | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 03/02/17 07:27 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 03/02/17 07:27 | |
| Chloroform | ug/L | <2.5 | 5.0 | 03/02/17 07:27 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/02/17 07:27 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 03/02/17 07:27 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 03/02/17 07:27 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

METHOD BLANK: 1472065 Matrix: Water
Associated Lab Samples: 40146033001, 40146033003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 03/02/17 07:27 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 03/02/17 07:27 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 03/02/17 07:27 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 03/02/17 07:27 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 03/02/17 07:27 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 03/02/17 07:27 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 03/02/17 07:27 | |
| Styrene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 03/02/17 07:27 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| Toluene | ug/L | <0.50 | 1.0 | 03/02/17 07:27 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/02/17 07:27 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 03/02/17 07:27 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 03/02/17 07:27 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 03/02/17 07:27 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 03/02/17 07:27 | |
| 4-Bromofluorobenzene (S) | % | 86 | 70-130 | 03/02/17 07:27 | |
| Dibromofluoromethane (S) | % | 100 | 70-130 | 03/02/17 07:27 | |
| Toluene-d8 (S) | % | 93 | 70-130 | 03/02/17 07:27 | |

LABORATORY CONTROL SAMPLE: 1472066

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 46.8 | 94 | 70-130 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 46.9 | 94 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 44.1 | 88 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 43.9 | 88 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 50.1 | 100 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 48.6 | 97 | 70-130 | |
| 1,1-Dichloropropene | ug/L | 50 | 47.0 | 94 | 70-133 | |
| 1,2,3-Trichlorobenzene | ug/L | 50 | 45.8 | 92 | 70-130 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 43.5 | 87 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 50.4 | 101 | 70-130 | |
| 1,2,4-Trimethylbenzene | ug/L | 50 | 48.1 | 96 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 45.7 | 91 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 45.5 | 91 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 47.0 | 94 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 46.9 | 94 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 44.5 | 89 | 70-130 | |
| 1,3,5-Trimethylbenzene | ug/L | 50 | 49.0 | 98 | 70-130 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

LABORATORY CONTROL SAMPLE: 1472066

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | ug/L | 50 | 45.0 | 90 | 70-130 | |
| 1,3-Dichloropropane | ug/L | 50 | 46.2 | 92 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 46.2 | 92 | 70-130 | |
| 2,2-Dichloropropane | ug/L | 50 | 45.8 | 92 | 58-148 | |
| 2-Chlorotoluene | ug/L | 50 | 46.5 | 93 | 70-130 | |
| 4-Chlorotoluene | ug/L | 50 | 48.0 | 96 | 70-130 | |
| Benzene | ug/L | 50 | 52.3 | 105 | 60-135 | |
| Bromobenzene | ug/L | 50 | 45.7 | 91 | 70-130 | |
| Bromochloromethane | ug/L | 50 | 47.6 | 95 | 70-130 | |
| Bromodichloromethane | ug/L | 50 | 46.8 | 94 | 70-130 | |
| Bromoform | ug/L | 50 | 43.1 | 86 | 70-130 | |
| Bromomethane | ug/L | 50 | 52.2 | 104 | 33-130 | |
| Carbon tetrachloride | ug/L | 50 | 45.7 | 91 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 46.7 | 93 | 70-130 | |
| Chloroethane | ug/L | 50 | 47.6 | 95 | 51-130 | |
| Chloroform | ug/L | 50 | 49.7 | 99 | 70-130 | |
| Chloromethane | ug/L | 50 | 52.8 | 106 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 48.4 | 97 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 42.9 | 86 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 42.6 | 85 | 70-130 | |
| Dibromomethane | ug/L | 50 | 48.9 | 98 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 45.3 | 91 | 23-130 | |
| Diisopropyl ether | ug/L | 50 | 52.5 | 105 | 70-130 | |
| Ethylbenzene | ug/L | 50 | 50.1 | 100 | 70-136 | |
| Hexachloro-1,3-butadiene | ug/L | 50 | 54.2 | 108 | 70-132 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 46.7 | 93 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 98.6 | 99 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 46.8 | 94 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 42.6 | 85 | 70-130 | |
| n-Butylbenzene | ug/L | 50 | 51.6 | 103 | 70-130 | |
| n-Propylbenzene | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Naphthalene | ug/L | 50 | 45.9 | 92 | 70-130 | |
| o-Xylene | ug/L | 50 | 45.1 | 90 | 70-134 | |
| p-Isopropyltoluene | ug/L | 50 | 51.1 | 102 | 70-130 | |
| sec-Butylbenzene | ug/L | 50 | 48.4 | 97 | 70-130 | |
| Styrene | ug/L | 50 | 46.9 | 94 | 70-133 | |
| tert-Butylbenzene | ug/L | 50 | 48.1 | 96 | 70-130 | |
| Tetrachloroethene | ug/L | 50 | 51.8 | 104 | 70-138 | |
| Toluene | ug/L | 50 | 51.4 | 103 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 48.1 | 96 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 44.3 | 89 | 69-130 | |
| Trichloroethene | ug/L | 50 | 47.1 | 94 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 55.7 | 111 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 56.3 | 113 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 93 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 103 | 70-130 | |
| Toluene-d8 (S) | % | | | 99 | 70-130 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1472964 1472965

| Parameter | Units | 40146119021 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 | <0.18 | 50 | 50 | 47.0 | 48.1 | 94 | 96 | 70-130 | 2 | 20 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 50 | 50 | 48.8 | 50.9 | 98 | 102 | 70-134 | 4 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 50 | 50 | 43.6 | 41.7 | 87 | 83 | 67-130 | 4 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 50 | 50 | 45.3 | 44.4 | 91 | 89 | 70-130 | 2 | 20 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 50 | 50 | 51.7 | 53.1 | 103 | 106 | 70-134 | 3 | 20 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 50 | 50 | 52.1 | 51.1 | 104 | 102 | 68-136 | 2 | 20 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 50 | 50 | 49.6 | 54.0 | 99 | 108 | 70-133 | 9 | 20 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 50 | 50 | 46.0 | 47.8 | 92 | 96 | 62-138 | 4 | 20 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 50 | 50 | 43.5 | 42.4 | 87 | 85 | 70-130 | 3 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 50 | 50 | 47.9 | 47.4 | 96 | 95 | 62-139 | 1 | 20 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 50 | 50 | 42.0 | 44.2 | 84 | 88 | 70-130 | 5 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 50 | 50 | 48.7 | 45.0 | 97 | 90 | 50-150 | 8 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 50 | 50 | 45.2 | 47.3 | 90 | 95 | 70-130 | 4 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 45.6 | 45.5 | 91 | 91 | 70-130 | 0 | 20 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 50 | 50 | 50.5 | 52.4 | 101 | 105 | 70-130 | 4 | 20 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 50 | 50 | 50.6 | 50.5 | 101 | 101 | 70-130 | 0 | 20 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 50 | 50 | 42.9 | 44.0 | 86 | 88 | 70-130 | 3 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 43.6 | 45.5 | 87 | 91 | 70-131 | 4 | 20 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 50 | 50 | 46.2 | 47.0 | 92 | 94 | 70-130 | 2 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 44.7 | 46.4 | 89 | 93 | 70-130 | 4 | 20 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 50 | 50 | 47.4 | 48.3 | 95 | 97 | 58-151 | 2 | 20 | |
| 2-Chlorotoluene | ug/L | <0.50 | 50 | 50 | 46.8 | 48.1 | 94 | 96 | 70-130 | 3 | 20 | |
| 4-Chlorotoluene | ug/L | <0.21 | 50 | 50 | 49.1 | 50.6 | 98 | 101 | 70-130 | 3 | 20 | |
| Benzene | ug/L | <0.50 | 50 | 50 | 52.0 | 55.0 | 104 | 110 | 57-138 | 6 | 20 | |
| Bromobenzene | ug/L | <0.23 | 50 | 50 | 46.6 | 47.7 | 93 | 95 | 70-130 | 2 | 20 | |
| Bromochloromethane | ug/L | <0.34 | 50 | 50 | 49.8 | 49.5 | 100 | 99 | 70-130 | 1 | 20 | |
| Bromodichloromethane | ug/L | <0.50 | 50 | 50 | 47.3 | 47.8 | 95 | 96 | 70-130 | 1 | 20 | |
| Bromoform | ug/L | <0.50 | 50 | 50 | 42.4 | 41.8 | 85 | 84 | 70-130 | 1 | 20 | |
| Bromomethane | ug/L | <2.4 | 50 | 50 | 55.1 | 58.9 | 110 | 118 | 33-130 | 7 | 27 | |
| Carbon tetrachloride | ug/L | <0.50 | 50 | 50 | 49.3 | 48.4 | 99 | 97 | 70-138 | 2 | 20 | |
| Chlorobenzene | ug/L | <0.50 | 50 | 50 | 45.5 | 46.7 | 91 | 93 | 70-130 | 3 | 20 | |
| Chloroethane | ug/L | <0.37 | 50 | 50 | 50.2 | 52.0 | 100 | 104 | 51-130 | 3 | 20 | |
| Chloroform | ug/L | <2.5 | 50 | 50 | 51.2 | 55.0 | 102 | 110 | 70-130 | 7 | 20 | |
| Chloromethane | ug/L | <0.50 | 50 | 50 | 52.3 | 53.7 | 105 | 107 | 25-132 | 3 | 20 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 48.1 | 50.3 | 96 | 101 | 61-140 | 4 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 50 | 50 | 45.8 | 41.6 | 92 | 83 | 70-130 | 10 | 20 | |
| Dibromochloromethane | ug/L | <0.50 | 50 | 50 | 43.4 | 44.8 | 87 | 90 | 70-130 | 3 | 20 | |
| Dibromomethane | ug/L | <0.43 | 50 | 50 | 50.5 | 53.1 | 101 | 106 | 70-130 | 5 | 20 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 50 | 50 | 45.8 | 45.5 | 92 | 91 | 23-130 | 1 | 20 | |
| Diisopropyl ether | ug/L | <0.50 | 50 | 50 | 54.3 | 56.6 | 109 | 113 | 70-130 | 4 | 20 | |
| Ethylbenzene | ug/L | <0.50 | 50 | 50 | 49.4 | 53.0 | 99 | 106 | 70-138 | 7 | 20 | |
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 50 | 50 | 56.0 | 53.3 | 112 | 107 | 56-147 | 5 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 50 | 50 | 47.0 | 51.8 | 94 | 104 | 70-152 | 10 | 20 | |
| m&p-Xylene | ug/L | <1.0 | 100 | 100 | 94.3 | 109 | 94 | 109 | 70-140 | 15 | 20 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 50 | 50 | 49.4 | 52.9 | 99 | 106 | 66-139 | 7 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1472964 1472965

| Parameter | Units | 40146119021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | ug/L | <0.23 | 50 | 50 | 41.4 | 44.8 | 83 | 90 | 70-130 | 8 | 20 | |
| n-Butylbenzene | ug/L | <0.50 | 50 | 50 | 49.6 | 48.6 | 99 | 97 | 66-146 | 2 | 20 | |
| n-Propylbenzene | ug/L | <0.50 | 50 | 50 | 50.6 | 51.9 | 101 | 104 | 70-133 | 3 | 20 | |
| Naphthalene | ug/L | <2.5 | 50 | 50 | 46.0 | 47.7 | 92 | 95 | 70-130 | 4 | 20 | |
| o-Xylene | ug/L | <0.50 | 50 | 50 | 43.8 | 52.6 | 88 | 105 | 70-134 | 18 | 20 | |
| p-Isopropyltoluene | ug/L | <0.50 | 50 | 50 | 49.1 | 48.6 | 98 | 97 | 65-132 | 1 | 20 | |
| sec-Butylbenzene | ug/L | <2.2 | 50 | 50 | 48.3 | 49.1 | 97 | 98 | 70-143 | 1 | 20 | |
| Styrene | ug/L | <0.50 | 50 | 50 | 40.5 | 49.9 | 81 | 100 | 70-138 | 21 | 20 | R1 |
| tert-Butylbenzene | ug/L | <0.18 | 50 | 50 | 48.5 | 49.7 | 97 | 99 | 70-141 | 2 | 20 | |
| Tetrachloroethene | ug/L | <0.50 | 50 | 50 | 50.9 | 54.3 | 102 | 109 | 70-148 | 6 | 20 | |
| Toluene | ug/L | <0.50 | 50 | 50 | 50.8 | 50.0 | 102 | 100 | 70-130 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 52.7 | 53.7 | 105 | 107 | 70-133 | 2 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 50 | 50 | 43.9 | 43.2 | 88 | 86 | 69-130 | 2 | 20 | |
| Trichloroethene | ug/L | <0.33 | 50 | 50 | 51.5 | 50.8 | 103 | 102 | 70-131 | 1 | 20 | |
| Trichlorofluoromethane | ug/L | <0.18 | 50 | 50 | 58.3 | 60.0 | 117 | 120 | 50-150 | 3 | 20 | |
| Vinyl chloride | ug/L | <0.18 | 50 | 50 | 57.4 | 58.2 | 115 | 116 | 49-133 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | | | 95 | 100 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 101 | 106 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 100 | 98 | 70-130 | | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

QC Batch: 249324 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40146033004, 40146033005

METHOD BLANK: 1472486 Matrix: Water
Associated Lab Samples: 40146033004, 40146033005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 03/02/17 11:12 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 03/02/17 11:12 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 03/02/17 11:12 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 03/02/17 11:12 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 03/02/17 11:12 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 03/02/17 11:12 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 03/02/17 11:12 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 03/02/17 11:12 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 03/02/17 11:12 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 03/02/17 11:12 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 03/02/17 11:12 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 03/02/17 11:12 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 03/02/17 11:12 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 03/02/17 11:12 | |
| Benzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 03/02/17 11:12 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 03/02/17 11:12 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Bromoform | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 03/02/17 11:12 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 03/02/17 11:12 | |
| Chloroform | ug/L | <2.5 | 5.0 | 03/02/17 11:12 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/02/17 11:12 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 03/02/17 11:12 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 03/02/17 11:12 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

METHOD BLANK: 1472486 Matrix: Water
Associated Lab Samples: 40146033004, 40146033005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 03/02/17 11:12 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 03/02/17 11:12 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 03/02/17 11:12 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 03/02/17 11:12 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 03/02/17 11:12 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 03/02/17 11:12 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 03/02/17 11:12 | |
| Styrene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 03/02/17 11:12 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| Toluene | ug/L | <0.50 | 1.0 | 03/02/17 11:12 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/02/17 11:12 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 03/02/17 11:12 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 03/02/17 11:12 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 03/02/17 11:12 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 03/02/17 11:12 | |
| 4-Bromofluorobenzene (S) | % | 94 | 70-130 | 03/02/17 11:12 | |
| Dibromofluoromethane (S) | % | 111 | 70-130 | 03/02/17 11:12 | |
| Toluene-d8 (S) | % | 94 | 70-130 | 03/02/17 11:12 | |

LABORATORY CONTROL SAMPLE: 1472487

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 50 | 59.7 | 119 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 48.6 | 97 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 51.6 | 103 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 60.2 | 120 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 60.8 | 122 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 49.6 | 99 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 46.4 | 93 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 53.0 | 106 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 49.9 | 100 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 58.0 | 116 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 52.5 | 105 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 48.9 | 98 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 48.7 | 97 | 70-130 | |
| Benzene | ug/L | 50 | 59.6 | 119 | 60-135 | |
| Bromodichloromethane | ug/L | 50 | 53.4 | 107 | 70-130 | |
| Bromoform | ug/L | 50 | 44.1 | 88 | 70-130 | |
| Bromomethane | ug/L | 50 | 46.2 | 92 | 33-130 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

LABORATORY CONTROL SAMPLE: 1472487

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 50 | 54.5 | 109 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 53.3 | 107 | 70-130 | |
| Chloroethane | ug/L | 50 | 52.8 | 106 | 51-130 | |
| Chloroform | ug/L | 50 | 55.5 | 111 | 70-130 | |
| Chloromethane | ug/L | 50 | 40.4 | 81 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 58.0 | 116 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 48.2 | 96 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 52.8 | 106 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 36.3 | 73 | 23-130 | |
| Ethylbenzene | ug/L | 50 | 55.6 | 111 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 58.0 | 116 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 114 | 114 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 67.8 | 136 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 59.2 | 118 | 70-130 | |
| o-Xylene | ug/L | 50 | 57.3 | 115 | 70-134 | |
| Styrene | ug/L | 50 | 57.4 | 115 | 70-133 | |
| Tetrachloroethene | ug/L | 50 | 48.1 | 96 | 70-138 | |
| Toluene | ug/L | 50 | 53.8 | 108 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 62.3 | 125 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 45.0 | 90 | 69-130 | |
| Trichloroethene | ug/L | 50 | 55.7 | 111 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 59.7 | 119 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 57.2 | 114 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 104 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 110 | 70-130 | |
| Toluene-d8 (S) | % | | | 96 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1472490 1472491

| Parameter | Units | 40146033004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | <0.50 | 50 | 50 | 57.9 | 59.1 | 116 | 118 | 70-134 | 2 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 50 | 50 | 46.9 | 47.3 | 94 | 95 | 67-130 | 1 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 50 | 50 | 48.4 | 49.4 | 97 | 99 | 70-130 | 2 | 20 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 50 | 50 | 57.9 | 59.4 | 116 | 119 | 70-134 | 3 | 20 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 50 | 50 | 58.2 | 60.4 | 116 | 121 | 68-136 | 4 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 50 | 50 | 48.2 | 48.9 | 96 | 98 | 62-139 | 1 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 50 | 50 | 43.8 | 46.6 | 88 | 93 | 50-150 | 6 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 50 | 50 | 50.2 | 51.7 | 100 | 103 | 70-130 | 3 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 48.1 | 48.7 | 96 | 97 | 70-130 | 1 | 20 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 50 | 50 | 54.0 | 57.5 | 108 | 115 | 70-130 | 6 | 20 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 50 | 50 | 50.6 | 50.9 | 101 | 102 | 70-130 | 1 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 48.5 | 48.8 | 97 | 98 | 70-131 | 1 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 48.2 | 47.8 | 96 | 96 | 70-130 | 1 | 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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1472490 1472491

| Parameter | Units | 40146033004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.50 | 50 | 50 | 56.5 | 58.6 | 113 | 117 | 57-138 | 4 | 20 | |
| Bromodichloromethane | ug/L | <0.50 | 50 | 50 | 51.1 | 52.2 | 102 | 104 | 70-130 | 2 | 20 | |
| Bromoform | ug/L | <0.50 | 50 | 50 | 42.2 | 43.4 | 84 | 87 | 70-130 | 3 | 20 | |
| Bromomethane | ug/L | <2.4 | 50 | 50 | 45.9 | 47.5 | 92 | 95 | 33-130 | 3 | 27 | |
| Carbon tetrachloride | ug/L | <0.50 | 50 | 50 | 52.9 | 54.6 | 106 | 109 | 70-138 | 3 | 20 | |
| Chlorobenzene | ug/L | <0.50 | 50 | 50 | 51.0 | 51.4 | 102 | 103 | 70-130 | 1 | 20 | |
| Chloroethane | ug/L | <0.37 | 50 | 50 | 49.5 | 51.9 | 99 | 104 | 51-130 | 5 | 20 | |
| Chloroform | ug/L | <2.5 | 50 | 50 | 53.4 | 55.4 | 107 | 111 | 70-130 | 4 | 20 | |
| Chloromethane | ug/L | <0.50 | 50 | 50 | 39.8 | 41.1 | 80 | 82 | 25-132 | 3 | 20 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 55.9 | 58.1 | 112 | 116 | 61-140 | 4 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 50 | 50 | 46.7 | 48.0 | 93 | 96 | 70-130 | 3 | 20 | |
| Dibromochloromethane | ug/L | <0.50 | 50 | 50 | 50.3 | 52.0 | 101 | 104 | 70-130 | 3 | 20 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 50 | 50 | 34.3 | 35.2 | 69 | 70 | 23-130 | 3 | 20 | |
| Ethylbenzene | ug/L | <0.50 | 50 | 50 | 53.6 | 54.2 | 107 | 108 | 70-138 | 1 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 50 | 50 | 56.3 | 57.3 | 113 | 115 | 70-152 | 2 | 20 | |
| m&p-Xylene | ug/L | <1.0 | 100 | 100 | 111 | 112 | 111 | 112 | 70-140 | 1 | 20 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 50 | 50 | 63.5 | 67.0 | 127 | 134 | 66-139 | 5 | 20 | |
| Methylene Chloride | ug/L | <0.23 | 50 | 50 | 56.6 | 58.3 | 113 | 117 | 70-130 | 3 | 20 | |
| o-Xylene | ug/L | <0.50 | 50 | 50 | 54.7 | 56.2 | 109 | 112 | 70-134 | 3 | 20 | |
| Styrene | ug/L | <0.50 | 50 | 50 | 55.2 | 55.8 | 110 | 112 | 70-138 | 1 | 20 | |
| Tetrachloroethene | ug/L | <0.50 | 50 | 50 | 47.7 | 47.9 | 95 | 96 | 70-148 | 0 | 20 | |
| Toluene | ug/L | <0.50 | 50 | 50 | 51.7 | 52.9 | 103 | 106 | 70-130 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 58.8 | 62.2 | 118 | 124 | 70-133 | 6 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 50 | 50 | 44.0 | 45.2 | 88 | 90 | 69-130 | 3 | 20 | |
| Trichloroethene | ug/L | <0.33 | 50 | 50 | 54.2 | 53.8 | 108 | 108 | 70-131 | 1 | 20 | |
| Trichlorofluoromethane | ug/L | <0.18 | 50 | 50 | 57.4 | 59.8 | 115 | 120 | 50-150 | 4 | 20 | |
| Vinyl chloride | ug/L | <0.18 | 50 | 50 | 55.1 | 57.4 | 110 | 115 | 49-133 | 4 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | | | 101 | 101 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 108 | 111 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 94 | 95 | 70-130 | | | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

QC Batch: 249512
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40146033002

METHOD BLANK: 1473282
Matrix: Water
Associated Lab Samples: 40146033002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 03/03/17 08:57 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 03/03/17 08:57 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 03/03/17 08:57 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 03/03/17 08:57 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 03/03/17 08:57 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 03/03/17 08:57 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 03/03/17 08:57 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 03/03/17 08:57 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 03/03/17 08:57 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 03/03/17 08:57 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 03/03/17 08:57 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 03/03/17 08:57 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 03/03/17 08:57 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 03/03/17 08:57 | |
| Benzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 03/03/17 08:57 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 03/03/17 08:57 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Bromoform | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 03/03/17 08:57 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 03/03/17 08:57 | |
| Chloroform | ug/L | <2.5 | 5.0 | 03/03/17 08:57 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/03/17 08:57 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 03/03/17 08:57 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 03/03/17 08:57 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

METHOD BLANK: 1473282 Matrix: Water
Associated Lab Samples: 40146033002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 03/03/17 08:57 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 03/03/17 08:57 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 03/03/17 08:57 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 03/03/17 08:57 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 03/03/17 08:57 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 03/03/17 08:57 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 03/03/17 08:57 | |
| Styrene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 03/03/17 08:57 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| Toluene | ug/L | <0.50 | 1.0 | 03/03/17 08:57 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 03/03/17 08:57 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 03/03/17 08:57 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 03/03/17 08:57 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 03/03/17 08:57 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 03/03/17 08:57 | |
| 4-Bromofluorobenzene (S) | % | 82 | 70-130 | 03/03/17 08:57 | |
| Dibromofluoromethane (S) | % | 109 | 70-130 | 03/03/17 08:57 | |
| Toluene-d8 (S) | % | 92 | 70-130 | 03/03/17 08:57 | |

LABORATORY CONTROL SAMPLE: 1473283

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 20 | 19.5 | 98 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 20 | 19.7 | 99 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 20 | 17.7 | 88 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 20 | 24.1 | 120 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 20 | 21.9 | 109 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 20 | 18.2 | 91 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 20 | 15.2 | 76 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 20 | 16.4 | 82 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 20 | 19.1 | 96 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 20 | 24.5 | 122 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 20 | 21.2 | 106 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 20 | 19.2 | 96 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 20 | 19.5 | 97 | 70-130 | |
| Benzene | ug/L | 20 | 21.8 | 109 | 60-135 | |
| Bromodichloromethane | ug/L | 20 | 23.3 | 116 | 70-130 | |
| Bromoform | ug/L | 20 | 16.4 | 82 | 70-130 | |
| Bromomethane | ug/L | 20 | 19.3 | 97 | 33-130 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 CR
Pace Project No.: 40146033

LABORATORY CONTROL SAMPLE: 1473283

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 20 | 21.3 | 107 | 70-138 | |
| Chlorobenzene | ug/L | 20 | 19.7 | 99 | 70-130 | |
| Chloroethane | ug/L | 20 | 20.3 | 102 | 51-130 | |
| Chloroform | ug/L | 20 | 24.1 | 121 | 70-130 | |
| Chloromethane | ug/L | 20 | 21.7 | 108 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 20 | 23.0 | 115 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 20 | 18.8 | 94 | 70-130 | |
| Dibromochloromethane | ug/L | 20 | 17.5 | 87 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 20 | 16.9 | 84 | 23-130 | |
| Ethylbenzene | ug/L | 20 | 21.0 | 105 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 20 | 20.6 | 103 | 70-140 | |
| m&p-Xylene | ug/L | 40 | 40.6 | 102 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 20 | 18.7 | 94 | 66-138 | |
| Methylene Chloride | ug/L | 20 | 23.1 | 116 | 70-130 | |
| o-Xylene | ug/L | 20 | 18.3 | 91 | 70-134 | |
| Styrene | ug/L | 20 | 20.3 | 102 | 70-133 | |
| Tetrachloroethene | ug/L | 20 | 17.1 | 86 | 70-138 | |
| Toluene | ug/L | 20 | 19.9 | 99 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 20 | 21.1 | 106 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 20 | 13.9 | 70 | 69-130 | |
| Trichloroethene | ug/L | 20 | 22.3 | 112 | 70-130 | |
| Trichlorofluoromethane | ug/L | 20 | 22.3 | 112 | 50-150 | |
| Vinyl chloride | ug/L | 20 | 23.7 | 119 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 97 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 108 | 70-130 | |
| Toluene-d8 (S) | % | | | 88 | 70-130 | |

**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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# QUALIFIERS

Project: TD P3 CR
Pace Project No.: 40146033

## 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.

## ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TD P3 CR
Pace Project No.: 40146033

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40146033001** | **CR-1** | EPA 8260 | 249238 | | |
| **40146033002** | **CR-2** | EPA 8260 | 249512 | | |
| **40146033003** | **CR-3** | EPA 8260 | 249238 | | |
| **40146033004** | **CR-4** | EPA 8260 | 249324 | | |
| **40146033005** | **CR-5** | EPA 8260 | 249324 | | |

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

# CHAIN OF CUSTODY

401460033



*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

| (Please Print Clearly) | |
|---|---|
| Company Name: | Environmental Audits Inc. |
| Branch/Location: | West Allis |
| Project Contact: | John Ruetz |
| Phone: | (414) 491-4282 |
| Project Number: | |
| Project Name: | TDP3 CR |
| Project State: | WI |
| Sampled By (Print): | Stephanie Wagner |
| Sampled By (Sign): | |
| PO #: | verbal |
| Regulatory Program: | |

| Quote #: | |
|---|---|
| Mail To Contact: | John Ruetz |
| Mail To Company: | Environmental Audits, Inc |
| Mail To Address: | 11327 W. Lincoln Ave West Allis WI 53227 |
| Invoice To Contact: | John Ruetz |
| Invoice To Company: | EA |
| Invoice To Address: | SAME AS ABOVE |
| Invoice To Phone: | (414) 491-4282 |

**Data Package Options** (billable)
☐ EPA Level III
☐ EPA Level IV

**MS/MSD**
☐ On your sample (billable)
☐ NOT needed on your sample

**Matrix Codes**

| | |
|---|---|
| A = Air | W = Water |
| B = Biota | DW = Drinking Water |
| C = Charcoal | GW = Ground Water |
| O = Oil | SW = Surface Water |
| S = Soil | WW = Waste Water |
| SI = Sludge | WP = Wipe |

| PACE LAB # | CLIENT FIELD ID | COLLECTION DATE | COLLECTION TIME | MATRIX | FILTERED? (YES/NO) | PRESERVATION (CODE)* | Analyses Requested | CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile # |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Y/N | Pick Letter | VOC | | | |
| 001 | CR-1 | 2/22/17 | | GW | N | B | 3 | | 3-40mlVB | |
| 002 | CR-2 | ↓ | | ↓ | | | 3 | | ↓ | |
| 003 | CR-3 | | | | | | 3 | | | |
| 004 | CR-4 | | | | | | 3 | | | |
| 005 | CR-5 | | | | | | 3 | | | |

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

| | |
|---|---|
| Email #1: | |
| Email #2: | |
| Telephone: | |
| Fax: | |

Samples on HOLD are subject to special pricing and release of liability

| Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|
| | 2/22/17 | Renee Paw | 2/23/17 1130 |
| Tricia Paw | 2/23/17 1610 | | 2/23/17 1610 |
| | | | |
| | | | |
| | | | |

PACE Project No.
401460033

Receipt Temp = ROI °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

# Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

**Client Name:** EDD Audits

Project #: **WO# : 40146033**

40146033

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

**Tracking #:** _____

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Custody Seal on Samples Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

**Thermometer Used** NA BH 2/23/17 **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

**Cooler Temperature** Uncorr: ROI /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

**Temp Blank Present:** ☐ yes ☑ no

**Person examining contents:**
Date: 2/23/17
Initials: BH

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

| | | | Comments: |
|---|---|---|---|
| Chain of Custody Present: | ☑Yes | ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: BH 2/23/17 | ☑Yes | ☐No ☐N/A | 2. no collect times BH 2/23/17 |
| Chain of Custody Relinquished: | ☑Yes | ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes | ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes | ☐No ☐N/A | 5. |
| - VOA Samples frozen upon receipt | ☐Yes | ☐No | Date/Time: |
| **Short Hold Time Analysis (<72hr):** | ☐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 | |
| -Pace IR Containers Used: | ☐Yes | ☐No ☑N/A | |
| Containers Intact: | ☑Yes | ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes | ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes | ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: W | | | |
| All containers needing preservation have been checked. (Non-Compliance noted in 13.) | ☐Yes | ☐No ☑N/A | 13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct |
| All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) | ☐Yes | ☐No ☑N/A | |
| exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER: | ☑Yes | ☐No | Initial when completed / Lab Std #ID of preservative / Date/ Time: |
| 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:** If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** [signature] **Date:** 2-23-17

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
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April 19, 2017

Ed Raymond
Environmental Audits, Inc
1409 Hillcrest Circle
Racine, WI 53406

RE: Project: TD P3 GW
Pace Project No.: 40148377

Dear Ed Raymond:
Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Ruetz, Environmental Audits Inc

**Pace Analytical Services, LLC**
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## CERTIFICATIONS

Project: TD P3 GW
Pace Project No.: 40148377

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: TD P3 GW
Pace Project No.: 40148377

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40148377001** | **CR-1** | Water | 04/12/17 00:00 | 04/14/17 10:05 |
| **40148377002** | **CR-2** | Water | 04/12/17 00:00 | 04/14/17 10:05 |
| **40148377003** | **CR-3** | Water | 04/12/17 00:00 | 04/14/17 10:05 |
| **40148377004** | **CR-4** | Water | 04/12/17 00:00 | 04/14/17 10:05 |
| **40148377005** | **CR-5** | Water | 04/12/17 00:00 | 04/14/17 10:05 |
| **40148377006** | **TRIP BLANK** | Water | 04/12/17 00:00 | 04/14/17 10:05 |

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## SAMPLE ANALYTE COUNT

Project: TD P3 GW
Pace Project No.: 40148377

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40148377001** | **CR-1** | EPA 8260 | HNW | 64 |
| **40148377002** | **CR-2** | EPA 8260 | HNW | 64 |
| **40148377003** | **CR-3** | EPA 8260 | HNW | 64 |
| **40148377004** | **CR-4** | EPA 8260 | HNW | 64 |
| **40148377005** | **CR-5** | EPA 8260 | HNW | 64 |
| **40148377006** | **TRIP BLANK** | EPA 8260 | HNW | 64 |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-1** **Lab ID: 40148377001** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 22:42 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 04/18/17 22:42 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 04/18/17 22:42 | 79-00-5 | |
| 1,1-Dichloroethane | **0.36J** | ug/L | 1.0 | 0.24 | 1 | | 04/18/17 22:42 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 04/18/17 22:42 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 04/18/17 22:42 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 22:42 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 22:42 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 22:42 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 22:42 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 22:42 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 22:42 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 04/18/17 22:42 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 04/18/17 22:42 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 22:42 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 04/18/17 22:42 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 04/18/17 22:42 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 04/18/17 22:42 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 22:42 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 04/18/17 22:42 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 04/18/17 22:42 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 22:42 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 04/18/17 22:42 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 22:42 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 22:42 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 22:42 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

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(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-1** **Lab ID: 40148377001** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 108-88-3 | |
| Trichloroethene | **0.55J** | ug/L | 1.0 | 0.33 | 1 | | 04/18/17 22:42 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 22:42 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 22:42 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 22:42 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 04/18/17 22:42 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 22:42 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 22:42 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 22:42 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 22:42 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 22:42 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 89 | % | 70-130 | | 1 | | 04/18/17 22:42 | 460-00-4 | |
| Dibromofluoromethane (S) | 120 | % | 70-130 | | 1 | | 04/18/17 22:42 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1 | | 04/18/17 22:42 | 2037-26-5 | |

**Sample: CR-2** **Lab ID: 40148377002** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:05 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 04/18/17 23:05 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 04/18/17 23:05 | 79-00-5 | |
| 1,1-Dichloroethane | **2.0** | ug/L | 1.0 | 0.24 | 1 | | 04/18/17 23:05 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 04/18/17 23:05 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 04/18/17 23:05 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:05 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:05 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:05 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:05 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:05 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:05 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-2** **Lab ID: 40148377002** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 04/18/17 23:05 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 04/18/17 23:05 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:05 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 04/18/17 23:05 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 04/18/17 23:05 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 04/18/17 23:05 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:05 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 04/18/17 23:05 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 04/18/17 23:05 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:05 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 04/18/17 23:05 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:05 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:05 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:05 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 04/18/17 23:05 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:05 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:05 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:05 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 04/18/17 23:05 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:05 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:05 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:05 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:05 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:05 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 90 | % | 70-130 | | 1 | | 04/18/17 23:05 | 460-00-4 | |
| Dibromofluoromethane (S) | 117 | % | 70-130 | | 1 | | 04/18/17 23:05 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1 | | 04/18/17 23:05 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-3** **Lab ID: 40148377003** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<181** | ug/L | 1000 | 181 | 1000 | | 04/19/17 11:31 | 630-20-6 | |
| 1,1,1-Trichloroethane | **38400** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<249** | ug/L | 1000 | 249 | 1000 | | 04/19/17 11:31 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<197** | ug/L | 1000 | 197 | 1000 | | 04/19/17 11:31 | 79-00-5 | |
| 1,1-Dichloroethane | **115000** | ug/L | 1000 | 242 | 1000 | | 04/19/17 11:31 | 75-34-3 | |
| 1,1-Dichloroethene | **5520** | ug/L | 1000 | 410 | 1000 | | 04/19/17 11:31 | 75-35-4 | |
| 1,1-Dichloropropene | **<441** | ug/L | 1000 | 441 | 1000 | | 04/19/17 11:31 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2130** | ug/L | 5000 | 2130 | 1000 | | 04/19/17 11:31 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2210** | ug/L | 5000 | 2210 | 1000 | | 04/19/17 11:31 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2160** | ug/L | 5000 | 2160 | 1000 | | 04/19/17 11:31 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<178** | ug/L | 1000 | 178 | 1000 | | 04/19/17 11:31 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 95-50-1 | |
| 1,2-Dichloroethane | **<168** | ug/L | 1000 | 168 | 1000 | | 04/19/17 11:31 | 107-06-2 | |
| 1,2-Dichloropropane | **<233** | ug/L | 1000 | 233 | 1000 | | 04/19/17 11:31 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 541-73-1 | |
| 1,3-Dichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 106-46-7 | |
| 2,2-Dichloropropane | **<484** | ug/L | 1000 | 484 | 1000 | | 04/19/17 11:31 | 594-20-7 | |
| 2-Chlorotoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 95-49-8 | |
| 4-Chlorotoluene | **<214** | ug/L | 1000 | 214 | 1000 | | 04/19/17 11:31 | 106-43-4 | |
| Benzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 71-43-2 | |
| Bromobenzene | **<230** | ug/L | 1000 | 230 | 1000 | | 04/19/17 11:31 | 108-86-1 | |
| Bromochloromethane | **<340** | ug/L | 1000 | 340 | 1000 | | 04/19/17 11:31 | 74-97-5 | |
| Bromodichloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 75-27-4 | |
| Bromoform | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 75-25-2 | |
| Bromomethane | **<2430** | ug/L | 5000 | 2430 | 1000 | | 04/19/17 11:31 | 74-83-9 | |
| Carbon tetrachloride | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 56-23-5 | |
| Chlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 108-90-7 | |
| Chloroethane | **36700** | ug/L | 1000 | 375 | 1000 | | 04/19/17 11:31 | 75-00-3 | |
| Chloroform | **<2500** | ug/L | 5000 | 2500 | 1000 | | 04/19/17 11:31 | 67-66-3 | |
| Chloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 74-87-3 | |
| Dibromochloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 124-48-1 | |
| Dibromomethane | **<427** | ug/L | 1000 | 427 | 1000 | | 04/19/17 11:31 | 74-95-3 | |
| Dichlorodifluoromethane | **<224** | ug/L | 1000 | 224 | 1000 | | 04/19/17 11:31 | 75-71-8 | |
| Diisopropyl ether | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 108-20-3 | |
| Ethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2110** | ug/L | 5000 | 2110 | 1000 | | 04/19/17 11:31 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<143** | ug/L | 1000 | 143 | 1000 | | 04/19/17 11:31 | 98-82-8 | |
| Methyl-tert-butyl ether | **<174** | ug/L | 1000 | 174 | 1000 | | 04/19/17 11:31 | 1634-04-4 | |
| Methylene Chloride | **233J** | ug/L | 1000 | 233 | 1000 | | 04/19/17 11:31 | 75-09-2 | |
| Naphthalene | **<2500** | ug/L | 5000 | 2500 | 1000 | | 04/19/17 11:31 | 91-20-3 | |
| Styrene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 100-42-5 | |
| Tetrachloroethene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-3** **Lab ID: 40148377003** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 108-88-3 | |
| Trichloroethene | **<331** | ug/L | 1000 | 331 | 1000 | | 04/19/17 11:31 | 79-01-6 | |
| Trichlorofluoromethane | **<185** | ug/L | 1000 | 185 | 1000 | | 04/19/17 11:31 | 75-69-4 | |
| Vinyl chloride | **5780** | ug/L | 1000 | 176 | 1000 | | 04/19/17 11:31 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<256** | ug/L | 1000 | 256 | 1000 | | 04/19/17 11:31 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 10061-01-5 | |
| m&p-Xylene | **<1000** | ug/L | 2000 | 1000 | 1000 | | 04/19/17 11:31 | 179601-23-1 | |
| n-Butylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 104-51-8 | |
| n-Propylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 103-65-1 | |
| o-Xylene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 95-47-6 | |
| p-Isopropyltoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 04/19/17 11:31 | 99-87-6 | |
| sec-Butylbenzene | **<2190** | ug/L | 5000 | 2190 | 1000 | | 04/19/17 11:31 | 135-98-8 | |
| tert-Butylbenzene | **<180** | ug/L | 1000 | 180 | 1000 | | 04/19/17 11:31 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<257** | ug/L | 1000 | 257 | 1000 | | 04/19/17 11:31 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<230** | ug/L | 1000 | 230 | 1000 | | 04/19/17 11:31 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 90 | % | 70-130 | | 1000 | | 04/19/17 11:31 | 460-00-4 | |
| Dibromofluoromethane (S) | 122 | % | 70-130 | | 1000 | | 04/19/17 11:31 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1000 | | 04/19/17 11:31 | 2037-26-5 | |

**Sample: CR-4** **Lab ID: 40148377004** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:28 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 04/18/17 23:28 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 04/18/17 23:28 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 04/18/17 23:28 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 04/18/17 23:28 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 04/18/17 23:28 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:28 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:28 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:28 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:28 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:28 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:28 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-4** **Lab ID: 40148377004** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 04/18/17 23:28 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 04/18/17 23:28 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:28 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 04/18/17 23:28 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 04/18/17 23:28 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 04/18/17 23:28 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:28 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 04/18/17 23:28 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 04/18/17 23:28 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:28 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 04/18/17 23:28 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:28 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:28 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:28 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 04/18/17 23:28 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:28 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:28 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:28 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 04/18/17 23:28 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:28 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:28 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:28 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:28 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:28 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 89 | % | 70-130 | | 1 | | 04/18/17 23:28 | 460-00-4 | |
| Dibromofluoromethane (S) | 120 | % | 70-130 | | 1 | | 04/18/17 23:28 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1 | | 04/18/17 23:28 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-5** **Lab ID: 40148377005** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:51 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 04/18/17 23:51 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 04/18/17 23:51 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 04/18/17 23:51 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 04/18/17 23:51 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 04/18/17 23:51 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:51 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:51 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:51 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:51 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:51 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:51 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 04/18/17 23:51 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 04/18/17 23:51 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:51 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 04/18/17 23:51 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 04/18/17 23:51 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 04/18/17 23:51 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:51 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 04/18/17 23:51 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 04/18/17 23:51 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 23:51 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 04/18/17 23:51 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 23:51 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:51 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 23:51 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: CR-5** **Lab ID: 40148377005** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 04/18/17 23:51 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:51 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:51 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:51 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 04/18/17 23:51 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 23:51 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 23:51 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 23:51 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 23:51 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 23:51 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 91 | % | 70-130 | | 1 | | 04/18/17 23:51 | 460-00-4 | |
| Dibromofluoromethane (S) | 120 | % | 70-130 | | 1 | | 04/18/17 23:51 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1 | | 04/18/17 23:51 | 2037-26-5 | |

**Sample: TRIP BLANK** **Lab ID: 40148377006** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 20:25 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 04/18/17 20:25 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 04/18/17 20:25 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 04/18/17 20:25 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 04/18/17 20:25 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 04/18/17 20:25 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 20:25 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 20:25 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 20:25 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 20:25 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 20:25 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 20:25 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: TD P3 GW
Pace Project No.: 40148377

**Sample: TRIP BLANK** **Lab ID: 40148377006** Collected: 04/12/17 00:00 Received: 04/14/17 10:05 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 04/18/17 20:25 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 04/18/17 20:25 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 20:25 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 04/18/17 20:25 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 04/18/17 20:25 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 04/18/17 20:25 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 20:25 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 04/18/17 20:25 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 04/18/17 20:25 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 04/18/17 20:25 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 04/18/17 20:25 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 04/18/17 20:25 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 20:25 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 04/18/17 20:25 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 04/18/17 20:25 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 20:25 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 20:25 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 20:25 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 04/18/17 20:25 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 04/18/17 20:25 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 04/18/17 20:25 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 04/18/17 20:25 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 04/18/17 20:25 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 04/18/17 20:25 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 91 | % | 70-130 | | 1 | | 04/18/17 20:25 | 460-00-4 | |
| Dibromofluoromethane (S) | 116 | % | 70-130 | | 1 | | 04/18/17 20:25 | 1868-53-7 | |
| Toluene-d8 (S) | 84 | % | 70-130 | | 1 | | 04/18/17 20:25 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 GW
Pace Project No.: 40148377

QC Batch: 252880 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40148377001, 40148377002, 40148377003, 40148377004, 40148377005, 40148377006

METHOD BLANK: 1492425 Matrix: Water
Associated Lab Samples: 40148377001, 40148377002, 40148377003, 40148377004, 40148377005, 40148377006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 04/18/17 18:30 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 04/18/17 18:30 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 04/18/17 18:30 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 04/18/17 18:30 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 04/18/17 18:30 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 04/18/17 18:30 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 04/18/17 18:30 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 04/18/17 18:30 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 04/18/17 18:30 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 04/18/17 18:30 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 04/18/17 18:30 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 04/18/17 18:30 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 04/18/17 18:30 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 04/18/17 18:30 | |
| Benzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 04/18/17 18:30 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 04/18/17 18:30 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Bromoform | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 04/18/17 18:30 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 04/18/17 18:30 | |
| Chloroform | ug/L | <2.5 | 5.0 | 04/18/17 18:30 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 04/18/17 18:30 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 04/18/17 18:30 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 04/18/17 18:30 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 GW
Pace Project No.: 40148377

METHOD BLANK: 1492425 Matrix: Water
Associated Lab Samples: 40148377001, 40148377002, 40148377003, 40148377004, 40148377005, 40148377006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 04/18/17 18:30 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 04/18/17 18:30 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 04/18/17 18:30 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 04/18/17 18:30 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 04/18/17 18:30 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 04/18/17 18:30 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 04/18/17 18:30 | |
| Styrene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 04/18/17 18:30 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| Toluene | ug/L | <0.50 | 1.0 | 04/18/17 18:30 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 04/18/17 18:30 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 04/18/17 18:30 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 04/18/17 18:30 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 04/18/17 18:30 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 04/18/17 18:30 | |
| 4-Bromofluorobenzene (S) | % | 90 | 70-130 | 04/18/17 18:30 | |
| Dibromofluoromethane (S) | % | 109 | 70-130 | 04/18/17 18:30 | |
| Toluene-d8 (S) | % | 85 | 70-130 | 04/18/17 18:30 | |

LABORATORY CONTROL SAMPLE: 1492426

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 50 | 60.2 | 120 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 38.8 | 78 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 47.5 | 95 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 56.7 | 113 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 60.6 | 121 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 42.0 | 84 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 33.7 | 67 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 47.7 | 95 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 46.1 | 92 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 53.4 | 107 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 50.9 | 102 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 45.2 | 90 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 47.9 | 96 | 70-130 | |
| Benzene | ug/L | 50 | 47.9 | 96 | 60-135 | |
| Bromodichloromethane | ug/L | 50 | 50.4 | 101 | 70-130 | |
| Bromoform | ug/L | 50 | 50.0 | 100 | 70-130 | |
| Bromomethane | ug/L | 50 | 50.5 | 101 | 33-130 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 GW
Pace Project No.: 40148377

LABORATORY CONTROL SAMPLE: 1492426

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 50 | 63.3 | 127 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 50.0 | 100 | 70-130 | |
| Chloroethane | ug/L | 50 | 49.3 | 99 | 51-130 | |
| Chloroform | ug/L | 50 | 56.4 | 113 | 70-130 | |
| Chloromethane | ug/L | 50 | 50.2 | 100 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 55.5 | 111 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 40.6 | 81 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 50.8 | 102 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 35.2 | 70 | 23-130 | |
| Ethylbenzene | ug/L | 50 | 48.6 | 97 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 48.9 | 98 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 104 | 104 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 48.2 | 96 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 58.2 | 116 | 70-130 | |
| o-Xylene | ug/L | 50 | 49.1 | 98 | 70-134 | |
| Styrene | ug/L | 50 | 51.0 | 102 | 70-133 | |
| Tetrachloroethene | ug/L | 50 | 54.5 | 109 | 70-138 | |
| Toluene | ug/L | 50 | 49.1 | 98 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 59.6 | 119 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 37.1 | 74 | 69-130 | |
| Trichloroethene | ug/L | 50 | 53.2 | 106 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 70.7 | 141 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 58.2 | 116 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 101 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 115 | 70-130 | |
| Toluene-d8 (S) | % | | | 86 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1492764 1492765

| Parameter | Units | 40148435007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | <0.50 | 50 | 50 | 57.7 | 63.4 | 115 | 127 | 70-134 | 9 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 50 | 50 | 37.6 | 40.0 | 75 | 80 | 67-130 | 6 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 50 | 50 | 45.1 | 47.9 | 90 | 96 | 70-130 | 6 | 20 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 50 | 50 | 54.2 | 59.9 | 108 | 120 | 70-134 | 10 | 20 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 50 | 50 | 60.4 | 66.6 | 121 | 133 | 68-136 | 10 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 50 | 50 | 41.8 | 44.7 | 84 | 89 | 62-139 | 7 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 50 | 50 | 32.6 | 35.6 | 65 | 71 | 50-150 | 9 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 50 | 50 | 45.5 | 48.7 | 91 | 97 | 70-130 | 7 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 44.8 | 47.0 | 90 | 94 | 70-130 | 5 | 20 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 50 | 50 | 50.2 | 56.2 | 100 | 112 | 70-130 | 11 | 20 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 50 | 50 | 49.4 | 51.8 | 99 | 104 | 70-130 | 5 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 44.0 | 46.2 | 88 | 92 | 70-131 | 5 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 46.9 | 48.7 | 94 | 97 | 70-130 | 4 | 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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD P3 GW
Pace Project No.: 40148377

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1492764 1492765

| Parameter | Units | 40148435007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.50 | 50 | 50 | 46.2 | 51.3 | 92 | 103 | 57-138 | 10 | 20 | |
| Bromodichloromethane | ug/L | <0.50 | 50 | 50 | 47.9 | 50.8 | 96 | 102 | 70-130 | 6 | 20 | |
| Bromoform | ug/L | <0.50 | 50 | 50 | 47.8 | 50.7 | 96 | 101 | 70-130 | 6 | 20 | |
| Bromomethane | ug/L | <2.4 | 50 | 50 | 55.9 | 61.2 | 112 | 122 | 33-130 | 9 | 27 | |
| Carbon tetrachloride | ug/L | <0.50 | 50 | 50 | 60.6 | 66.9 | 121 | 134 | 70-138 | 10 | 20 | |
| Chlorobenzene | ug/L | <0.50 | 50 | 50 | 48.2 | 50.4 | 96 | 101 | 70-130 | 4 | 20 | |
| Chloroethane | ug/L | <0.37 | 50 | 50 | 51.3 | 56.5 | 103 | 113 | 51-130 | 10 | 20 | |
| Chloroform | ug/L | <2.5 | 50 | 50 | 53.6 | 59.0 | 107 | 118 | 70-130 | 10 | 20 | |
| Chloromethane | ug/L | <0.50 | 50 | 50 | 63.2 | 68.7 | 126 | 137 | 25-132 | 8 | 20 | M1 |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 54.0 | 58.9 | 108 | 118 | 61-140 | 9 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 50 | 50 | 39.4 | 41.8 | 79 | 84 | 70-130 | 6 | 20 | |
| Dibromochloromethane | ug/L | <0.50 | 50 | 50 | 48.3 | 51.4 | 97 | 103 | 70-130 | 6 | 20 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 50 | 50 | 57.8 | 63.8 | 116 | 128 | 23-130 | 10 | 20 | |
| Ethylbenzene | ug/L | <0.50 | 50 | 50 | 46.3 | 48.8 | 93 | 98 | 70-138 | 5 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 50 | 50 | 47.1 | 49.6 | 94 | 99 | 70-152 | 5 | 20 | |
| m&p-Xylene | ug/L | <1.0 | 100 | 100 | 99.1 | 105 | 99 | 105 | 70-140 | 5 | 20 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 50 | 50 | 46.7 | 52.5 | 93 | 105 | 66-139 | 12 | 20 | |
| Methylene Chloride | ug/L | <0.23 | 50 | 50 | 57.1 | 62.9 | 114 | 126 | 70-130 | 10 | 20 | |
| o-Xylene | ug/L | <0.50 | 50 | 50 | 47.1 | 49.7 | 94 | 99 | 70-134 | 5 | 20 | |
| Styrene | ug/L | <0.50 | 50 | 50 | 48.3 | 51.1 | 97 | 102 | 70-138 | 6 | 20 | |
| Tetrachloroethene | ug/L | <0.50 | 50 | 50 | 53.0 | 55.7 | 106 | 111 | 70-148 | 5 | 20 | |
| Toluene | ug/L | <0.50 | 50 | 50 | 47.2 | 49.7 | 94 | 99 | 70-130 | 5 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 57.8 | 63.5 | 116 | 127 | 70-133 | 9 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 50 | 50 | 36.2 | 38.6 | 72 | 77 | 69-130 | 6 | 20 | |
| Trichloroethene | ug/L | <0.33 | 50 | 50 | 51.5 | 54.2 | 103 | 108 | 70-131 | 5 | 20 | |
| Trichlorofluoromethane | ug/L | <0.18 | 50 | 50 | 71.2 | 78.1 | 142 | 156 | 50-150 | 9 | 20 | M1 |
| Vinyl chloride | ug/L | <0.18 | 50 | 50 | 66.1 | 72.1 | 132 | 144 | 49-133 | 9 | 20 | M1 |
| 4-Bromofluorobenzene (S) | % | | | | | | 99 | 100 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 112 | 118 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 86 | 87 | 70-130 | | | |

**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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# QUALIFIERS

Project: TD P3 GW
Pace Project No.: 40148377

## 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.

## ANALYTE QUALIFIERS

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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TD P3 GW
Pace Project No.: 40148377

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40148377001** | **CR-1** | EPA 8260 | 252880 | | |
| **40148377002** | **CR-2** | EPA 8260 | 252880 | | |
| **40148377003** | **CR-3** | EPA 8260 | 252880 | | |
| **40148377004** | **CR-4** | EPA 8260 | 252880 | | |
| **40148377005** | **CR-5** | EPA 8260 | 252880 | | |
| **40148377006** | **TRIP BLANK** | EPA 8260 | 252880 | | |

Pace Analytical™
www.pacelabs.com

# CHAIN-OF-CUSTODY / Analytical Request Document

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

40148377



**Section A** Required Client Information:

| | |
|---|---|
| Company: | Environmental Audits Inc. |
| Address: | 11327 W Lincoln Avenue |
| | West Allis Wi 53051 |
| Email To: | john@environmentalaudits.net |
| Phone: 414-226-5563 | Fax: |
| Requested Due Date/TAT: | |

**Section B** Required Project Information:

| | |
|---|---|
| Report To: | jrruetz@yahoo.com; |
| Copy To: | eeriii@wi.rr.com; john@environmentalaudits.net |
| | steph@environmentalaudits.net |
| Purchase Order No.: | Verbal |
| Project Name: | TD P3 GW |
| Project Number: | |

**Section C** Invoice Information:

| | |
|---|---|
| Attention: | John Ruetz |
| Company Name: | Environmental Audits Inc. |
| Address: | 11327 W Lincoln Avenue |
| Pace Quote Reference: | |
| Pace Project Manager: | |
| Pace Profile #: | |

**REGULATORY AGENCY**

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: WI

**Section D** Required Client Information

**SAMPLE ID**
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| DRINKING WATER | DW |
| WATER | WT |
| WASTE WATER | WW |
| PRODUCT | P |
| SOIL/SOLID | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| OTHER | OT |
| TISSUE | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED COMPOSITE START DATE | COLLECTED COMPOSITE START TIME | COLLECTED COMPOSITE END/GRAB DATE | COLLECTED COMPOSITE END/GRAB TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other | Analysis Test: VOC | Residual Chlorine (Y/N) | Pace Project No./ Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Requested Analysis Filtered (Y/N) | | | | | | | | | | | | | | | | Y/N | N | | |
| 1 | CR-1 001 | GW | G | 4/12/17 | | | | | 3 | | | | x | | | | | 3 | | 3-40mLvB |
| 2 | CR-2 002 | GW | G | 4/12/17 | | | | | 3 | | | | x | | | | | 3 | | |
| 3 | CR-3 003 | GW | G | 4/12/17 | | | | | 3 | | | | x | | | | | 3 | | |
| 4 | CR-4 004 | GW | G | 4/12/17 | | | | | 3 | | | | x | | | | | 3 | | |
| 5 | CR-5 005 | GW | G | 4/12/17 | | | | | 3 | | | | x | | | | | 3 | | |
| 6 | Trip Blank | | | | | | | | | | | | | | | | | | | 2-40mLvB |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Stephanie Wagner | 3/22/17 | ~~1545~~ | Mary Jannin | 4/13/17 | 1545 | | | | |
| | Mary Jannin | 4/13/17 | 1615 | | | | | | | |
| | CS Logistics | 4/14/17 | 1005 | Kimberly Retzke Pace | 4/14/17 | 1005 | R01 | Y | Y | Y |
| | | | | | | | | | | |

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Stephanie Wagner

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/12/17

| Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

# Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: **WO# : 40148377**

40148377

**Client Name:** Enviro. Audits

**Courier:** ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

**Tracking #:**

**Custody Seal on Cooler/Box Present:** ☑ yes ☐ no Seals intact: ☑ yes ☐ no

**Custody Seal on Samples Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

**Thermometer Used** NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

**Cooler Temperature** Uncorr: 2.01 /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

**Temp Blank Present:** ☐ yes ☑ no

**Person examining contents:**
Date: 4-14-17
Initials: KR

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°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. Typed only. 4-14-17 KR |
| Sampler Name & Signature on COC: | ☑Yes | ☐No | ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes | ☐No | ☐N/A | 5. |
| - VOA Samples frozen upon receipt | ☐Yes | ☐No | | Date/Time: |
| **Short Hold Time Analysis (<72hr):** | ☐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 | |
| -Pace IR Containers Used: | ☐Yes | ☐No | ☑N/A | |
| Containers Intact: | ☑Yes | ☐No | ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes | ☐No | ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes | ☐No | ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: W | | | | |
| All containers needing preservation have been checked. (Non-Compliance noted in 13.) | ☐Yes | ☐No | ☑N/A | 13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct |
| All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) | ☐Yes | ☐No | ☑N/A | |
| exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER: | ☑Yes | ☐No | | Initial when completed / Lab Std #ID of preservative / Date/ Time: |
| 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): 375 | | | | |

**Client Notification/ Resolution:** If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** JJ for DM **Date:** 4-14-17

F-GB-C-031-Rev.03 (9April2015) SCUR Form

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 08, 2016

Ed Raymond
Environmental Audits, Inc
1409 Hillcrest Circle
Racine, WI 53406

RE: Project: TD CR 3RD QTR
Pace Project No.: 40136240

Dear Ed Raymond:
Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 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,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: John Ruetz, Environmental Audits Inc

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
Virginia VELAP ID: 460263
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Virginia VELAP Certification ID: 460263
Virginia VELAP ID: 460263
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE SUMMARY

Project: TD CR 3RD QTR
Pace Project No.: 40136240

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40136240001** | **CR-1** | Water | 08/02/16 00:00 | 08/04/16 10:00 |
| **40136240002** | **CR-2** | Water | 08/02/16 00:00 | 08/04/16 10:00 |
| **40136240003** | **CR-3** | Water | 08/02/16 00:00 | 08/04/16 10:00 |
| **40136240004** | **CR-4** | Water | 08/02/16 00:00 | 08/04/16 10:00 |
| **40136240005** | **CR-5** | Water | 08/02/16 00:00 | 08/04/16 10:00 |
| **40136240006** | **TRIP BLANK** | Water | 08/02/16 00:00 | 08/04/16 10:00 |

**Pace Analytical Services, Inc.**
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Green Bay, WI 54302
(920)469-2436

## SAMPLE ANALYTE COUNT

Project: TD CR 3RD QTR
Pace Project No.: 40136240

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40136240001** | **CR-1** | EPA 8260 | HNW | 64 |
| **40136240002** | **CR-2** | EPA 8260 | HNW | 64 |
| **40136240003** | **CR-3** | EPA 8260 | HNW | 64 |
| **40136240004** | **CR-4** | EPA 8260 | HNW | 64 |
| **40136240005** | **CR-5** | EPA 8260 | HNW | 64 |
| **40136240006** | **TRIP BLANK** | EPA 8260 | HNW | 64 |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-1** **Lab ID: 40136240001** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:21 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 08/05/16 21:21 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 08/05/16 21:21 | 79-00-5 | |
| 1,1-Dichloroethane | **0.38J** | ug/L | 1.0 | 0.24 | 1 | | 08/05/16 21:21 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 08/05/16 21:21 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 08/05/16 21:21 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 21:21 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:21 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:21 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:21 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 21:21 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:21 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 08/05/16 21:21 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 08/05/16 21:21 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:21 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 08/05/16 21:21 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 08/05/16 21:21 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 08/05/16 21:21 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 21:21 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 08/05/16 21:21 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 08/05/16 21:21 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 21:21 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 08/05/16 21:21 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 21:21 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:21 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 21:21 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-1** **Lab ID: 40136240001** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 108-88-3 | |
| Trichloroethene | **0.80J** | ug/L | 1.0 | 0.33 | 1 | | 08/05/16 21:21 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:21 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:21 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 21:21 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 08/05/16 21:21 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:21 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:21 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:21 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 21:21 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:21 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | | 08/05/16 21:21 | 460-00-4 | |
| Dibromofluoromethane (S) | 88 | % | 70-130 | | 1 | | 08/05/16 21:21 | 1868-53-7 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/05/16 21:21 | 2037-26-5 | |

**Sample: CR-2** **Lab ID: 40136240002** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<181** | ug/L | 1000 | 181 | 1000 | | 08/05/16 15:50 | 630-20-6 | |
| 1,1,1-Trichloroethane | **33500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<249** | ug/L | 1000 | 249 | 1000 | | 08/05/16 15:50 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<197** | ug/L | 1000 | 197 | 1000 | | 08/05/16 15:50 | 79-00-5 | |
| 1,1-Dichloroethane | **101000** | ug/L | 1000 | 242 | 1000 | | 08/05/16 15:50 | 75-34-3 | |
| 1,1-Dichloroethene | **4880** | ug/L | 1000 | 410 | 1000 | | 08/05/16 15:50 | 75-35-4 | |
| 1,1-Dichloropropene | **<441** | ug/L | 1000 | 441 | 1000 | | 08/05/16 15:50 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2130** | ug/L | 5000 | 2130 | 1000 | | 08/05/16 15:50 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2210** | ug/L | 5000 | 2210 | 1000 | | 08/05/16 15:50 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2160** | ug/L | 5000 | 2160 | 1000 | | 08/05/16 15:50 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<178** | ug/L | 1000 | 178 | 1000 | | 08/05/16 15:50 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 95-50-1 | |
| 1,2-Dichloroethane | **<168** | ug/L | 1000 | 168 | 1000 | | 08/05/16 15:50 | 107-06-2 | |
| 1,2-Dichloropropane | **<233** | ug/L | 1000 | 233 | 1000 | | 08/05/16 15:50 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 541-73-1 | |
| 1,3-Dichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-2** **Lab ID: 40136240002** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 106-46-7 | |
| 2,2-Dichloropropane | **<484** | ug/L | 1000 | 484 | 1000 | | 08/05/16 15:50 | 594-20-7 | |
| 2-Chlorotoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 95-49-8 | |
| 4-Chlorotoluene | **<214** | ug/L | 1000 | 214 | 1000 | | 08/05/16 15:50 | 106-43-4 | |
| Benzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 71-43-2 | |
| Bromobenzene | **<230** | ug/L | 1000 | 230 | 1000 | | 08/05/16 15:50 | 108-86-1 | |
| Bromochloromethane | **<340** | ug/L | 1000 | 340 | 1000 | | 08/05/16 15:50 | 74-97-5 | |
| Bromodichloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 75-27-4 | |
| Bromoform | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 75-25-2 | |
| Bromomethane | **<2430** | ug/L | 5000 | 2430 | 1000 | | 08/05/16 15:50 | 74-83-9 | |
| Carbon tetrachloride | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 56-23-5 | |
| Chlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 108-90-7 | |
| Chloroethane | **18900** | ug/L | 1000 | 375 | 1000 | | 08/05/16 15:50 | 75-00-3 | |
| Chloroform | **<2500** | ug/L | 5000 | 2500 | 1000 | | 08/05/16 15:50 | 67-66-3 | |
| Chloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 74-87-3 | |
| Dibromochloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 124-48-1 | |
| Dibromomethane | **<427** | ug/L | 1000 | 427 | 1000 | | 08/05/16 15:50 | 74-95-3 | |
| Dichlorodifluoromethane | **<224** | ug/L | 1000 | 224 | 1000 | | 08/05/16 15:50 | 75-71-8 | |
| Diisopropyl ether | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 108-20-3 | |
| Ethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2110** | ug/L | 5000 | 2110 | 1000 | | 08/05/16 15:50 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<143** | ug/L | 1000 | 143 | 1000 | | 08/05/16 15:50 | 98-82-8 | |
| Methyl-tert-butyl ether | **<174** | ug/L | 1000 | 174 | 1000 | | 08/05/16 15:50 | 1634-04-4 | |
| Methylene Chloride | **320J** | ug/L | 1000 | 233 | 1000 | | 08/05/16 15:50 | 75-09-2 | |
| Naphthalene | **<2500** | ug/L | 5000 | 2500 | 1000 | | 08/05/16 15:50 | 91-20-3 | |
| Styrene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 100-42-5 | |
| Tetrachloroethene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 127-18-4 | |
| Toluene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 108-88-3 | |
| Trichloroethene | **<331** | ug/L | 1000 | 331 | 1000 | | 08/05/16 15:50 | 79-01-6 | |
| Trichlorofluoromethane | **<185** | ug/L | 1000 | 185 | 1000 | | 08/05/16 15:50 | 75-69-4 | |
| Vinyl chloride | **3660** | ug/L | 1000 | 176 | 1000 | | 08/05/16 15:50 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<256** | ug/L | 1000 | 256 | 1000 | | 08/05/16 15:50 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 10061-01-5 | |
| m&p-Xylene | **<1000** | ug/L | 2000 | 1000 | 1000 | | 08/05/16 15:50 | 179601-23-1 | |
| n-Butylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 104-51-8 | |
| n-Propylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 103-65-1 | |
| o-Xylene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 95-47-6 | |
| p-Isopropyltoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 08/05/16 15:50 | 99-87-6 | |
| sec-Butylbenzene | **<2190** | ug/L | 5000 | 2190 | 1000 | | 08/05/16 15:50 | 135-98-8 | |
| tert-Butylbenzene | **<180** | ug/L | 1000 | 180 | 1000 | | 08/05/16 15:50 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<257** | ug/L | 1000 | 257 | 1000 | | 08/05/16 15:50 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<230** | ug/L | 1000 | 230 | 1000 | | 08/05/16 15:50 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1000 | | 08/05/16 15:50 | 460-00-4 | |
| Dibromofluoromethane (S) | 94 | % | 70-130 | | 1000 | | 08/05/16 15:50 | 1868-53-7 | |
| Toluene-d8 (S) | 102 | % | 70-130 | | 1000 | | 08/05/16 15:50 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-3** **Lab ID: 40136240003** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/08/16 08:18 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 08/08/16 08:18 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 08/08/16 08:18 | 79-00-5 | |
| 1,1-Dichloroethane | **1.0** | ug/L | 1.0 | 0.24 | 1 | | 08/08/16 08:18 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 08/08/16 08:18 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 08/08/16 08:18 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/08/16 08:18 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/08/16 08:18 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/08/16 08:18 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/08/16 08:18 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/08/16 08:18 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/08/16 08:18 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 08/08/16 08:18 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 08/08/16 08:18 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/08/16 08:18 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 08/08/16 08:18 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 08/08/16 08:18 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 08/08/16 08:18 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/08/16 08:18 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 08/08/16 08:18 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 08/08/16 08:18 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/08/16 08:18 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 08/08/16 08:18 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/08/16 08:18 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/08/16 08:18 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/08/16 08:18 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-3** **Lab ID: 40136240003** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 08/08/16 08:18 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/08/16 08:18 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/08/16 08:18 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/08/16 08:18 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 08/08/16 08:18 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/08/16 08:18 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/08/16 08:18 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/08/16 08:18 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/08/16 08:18 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/08/16 08:18 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 91 | % | 70-130 | | 1 | | 08/08/16 08:18 | 460-00-4 | |
| Dibromofluoromethane (S) | 95 | % | 70-130 | | 1 | | 08/08/16 08:18 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 70-130 | | 1 | | 08/08/16 08:18 | 2037-26-5 | |

**Sample: CR-4** **Lab ID: 40136240004** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:43 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 08/05/16 21:43 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 08/05/16 21:43 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 08/05/16 21:43 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 08/05/16 21:43 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 08/05/16 21:43 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 21:43 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:43 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:43 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:43 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 21:43 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:43 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-4** **Lab ID: 40136240004** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 08/05/16 21:43 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 08/05/16 21:43 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:43 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 08/05/16 21:43 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 08/05/16 21:43 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 08/05/16 21:43 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 21:43 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 08/05/16 21:43 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 08/05/16 21:43 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 21:43 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 08/05/16 21:43 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 21:43 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:43 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 21:43 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 08/05/16 21:43 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:43 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:43 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 21:43 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 08/05/16 21:43 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 21:43 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 21:43 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 21:43 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 21:43 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 21:43 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | | 08/05/16 21:43 | 460-00-4 | |
| Dibromofluoromethane (S) | 91 | % | 70-130 | | 1 | | 08/05/16 21:43 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 70-130 | | 1 | | 08/05/16 21:43 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-5** **Lab ID: 40136240005** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 22:05 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 08/05/16 22:05 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 08/05/16 22:05 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 08/05/16 22:05 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 08/05/16 22:05 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 08/05/16 22:05 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 22:05 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 22:05 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 22:05 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 22:05 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 22:05 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 22:05 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 08/05/16 22:05 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 08/05/16 22:05 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 22:05 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 08/05/16 22:05 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 08/05/16 22:05 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 08/05/16 22:05 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 22:05 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 08/05/16 22:05 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 08/05/16 22:05 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 22:05 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 08/05/16 22:05 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 22:05 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 22:05 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 22:05 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: CR-5** **Lab ID: 40136240005** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 08/05/16 22:05 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 22:05 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 22:05 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 22:05 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 08/05/16 22:05 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 22:05 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 22:05 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 22:05 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 22:05 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 22:05 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | | 08/05/16 22:05 | 460-00-4 | |
| Dibromofluoromethane (S) | 93 | % | 70-130 | | 1 | | 08/05/16 22:05 | 1868-53-7 | |
| Toluene-d8 (S) | 100 | % | 70-130 | | 1 | | 08/05/16 22:05 | 2037-26-5 | |

**Sample: TRIP BLANK** **Lab ID: 40136240006** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 20:59 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 08/05/16 20:59 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 08/05/16 20:59 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 08/05/16 20:59 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 08/05/16 20:59 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 08/05/16 20:59 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 20:59 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 20:59 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 20:59 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 20:59 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 20:59 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 20:59 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

**Sample: TRIP BLANK** **Lab ID: 40136240006** Collected: 08/02/16 00:00 Received: 08/04/16 10:00 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 08/05/16 20:59 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 08/05/16 20:59 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 20:59 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 08/05/16 20:59 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 08/05/16 20:59 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 08/05/16 20:59 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 20:59 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 08/05/16 20:59 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 08/05/16 20:59 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 08/05/16 20:59 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 08/05/16 20:59 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 08/05/16 20:59 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 20:59 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 08/05/16 20:59 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 08/05/16 20:59 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 20:59 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 20:59 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 20:59 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 08/05/16 20:59 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 08/05/16 20:59 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 08/05/16 20:59 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 08/05/16 20:59 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 08/05/16 20:59 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 08/05/16 20:59 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 92 | % | 70-130 | | 1 | | 08/05/16 20:59 | 460-00-4 | pH |
| Dibromofluoromethane (S) | 92 | % | 70-130 | | 1 | | 08/05/16 20:59 | 1868-53-7 | |
| Toluene-d8 (S) | 103 | % | 70-130 | | 1 | | 08/05/16 20:59 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD CR 3RD QTR
Pace Project No.: 40136240

QC Batch: 231639 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40136240001, 40136240002, 40136240003, 40136240004, 40136240005, 40136240006

METHOD BLANK: 1373706 Matrix: Water
Associated Lab Samples: 40136240001, 40136240002, 40136240003, 40136240004, 40136240005, 40136240006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 08/05/16 14:00 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 08/05/16 14:00 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 08/05/16 14:00 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 08/05/16 14:00 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 08/05/16 14:00 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 08/05/16 14:00 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 08/05/16 14:00 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 08/05/16 14:00 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 08/05/16 14:00 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 08/05/16 14:00 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 08/05/16 14:00 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 08/05/16 14:00 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 08/05/16 14:00 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 08/05/16 14:00 | |
| Benzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 08/05/16 14:00 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 08/05/16 14:00 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Bromoform | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 08/05/16 14:00 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 08/05/16 14:00 | |
| Chloroform | ug/L | <2.5 | 5.0 | 08/05/16 14:00 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 08/05/16 14:00 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 08/05/16 14:00 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 08/05/16 14:00 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |

**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

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD CR 3RD QTR
Pace Project No.: 40136240

METHOD BLANK: 1373706 Matrix: Water
Associated Lab Samples: 40136240001, 40136240002, 40136240003, 40136240004, 40136240005, 40136240006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 08/05/16 14:00 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 08/05/16 14:00 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 08/05/16 14:00 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 08/05/16 14:00 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 08/05/16 14:00 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 08/05/16 14:00 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 08/05/16 14:00 | |
| Styrene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 08/05/16 14:00 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| Toluene | ug/L | <0.50 | 1.0 | 08/05/16 14:00 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 08/05/16 14:00 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 08/05/16 14:00 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 08/05/16 14:00 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 08/05/16 14:00 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 08/05/16 14:00 | |
| 4-Bromofluorobenzene (S) | % | 94 | 70-130 | 08/05/16 14:00 | |
| Dibromofluoromethane (S) | % | 92 | 70-130 | 08/05/16 14:00 | |
| Toluene-d8 (S) | % | 102 | 70-130 | 08/05/16 14:00 | |

LABORATORY CONTROL SAMPLE: 1373707

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 50 | 47.8 | 96 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 56.0 | 112 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 51.5 | 103 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 52.7 | 105 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 45.3 | 91 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 49.0 | 98 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 59.8 | 120 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 49.0 | 98 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 47.3 | 95 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 50.8 | 102 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 53.6 | 107 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 47.7 | 95 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 47.9 | 96 | 70-130 | |
| Benzene | ug/L | 50 | 52.4 | 105 | 60-135 | |
| Bromodichloromethane | ug/L | 50 | 53.3 | 107 | 70-130 | |
| Bromoform | ug/L | 50 | 45.3 | 91 | 70-130 | |
| Bromomethane | ug/L | 50 | 22.8 | 46 | 33-130 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD CR 3RD QTR
Pace Project No.: 40136240

LABORATORY CONTROL SAMPLE: 1373707

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 50 | 43.3 | 87 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 49.4 | 99 | 70-130 | |
| Chloroethane | ug/L | 50 | 40.0 | 80 | 51-130 | |
| Chloroform | ug/L | 50 | 50.5 | 101 | 70-130 | |
| Chloromethane | ug/L | 50 | 44.3 | 89 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 47.6 | 95 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 57.2 | 114 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 44.2 | 88 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 33.5 | 67 | 23-130 | |
| Ethylbenzene | ug/L | 50 | 53.8 | 108 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 53.7 | 107 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 103 | 103 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 54.5 | 109 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 47.3 | 95 | 70-130 | |
| o-Xylene | ug/L | 50 | 50.7 | 101 | 70-134 | |
| Styrene | ug/L | 50 | 49.2 | 98 | 70-133 | |
| Tetrachloroethene | ug/L | 50 | 44.5 | 89 | 70-138 | |
| Toluene | ug/L | 50 | 51.7 | 103 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 47.2 | 94 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 52.0 | 104 | 69-130 | |
| Trichloroethene | ug/L | 50 | 49.5 | 99 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 45.9 | 92 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 44.0 | 88 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 106 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 96 | 70-130 | |
| Toluene-d8 (S) | % | | | 103 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1373785 1373786

| Parameter | Units | 40136240002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 33500 | 50000 | 50000 | 85000 | 81100 | 103 | 95 | 70-134 | 5 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <249 | 50000 | 50000 | 58900 | 57000 | 118 | 114 | 67-130 | 3 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <197 | 50000 | 50000 | 52800 | 51500 | 106 | 103 | 70-130 | 2 | 20 | |
| 1,1-Dichloroethane | ug/L | 101000 | 50000 | 50000 | 158000 | 146000 | 114 | 91 | 70-134 | 8 | 20 | |
| 1,1-Dichloroethene | ug/L | 4880 | 50000 | 50000 | 52300 | 49900 | 95 | 90 | 68-136 | 5 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2210 | 50000 | 50000 | 52900 | 51200 | 105 | 102 | 62-139 | 3 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2160 | 50000 | 50000 | 59900 | 60200 | 120 | 120 | 50-150 | 1 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <178 | 50000 | 50000 | 50800 | 49000 | 102 | 98 | 70-130 | 4 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <500 | 50000 | 50000 | 48600 | 49200 | 97 | 98 | 70-130 | 1 | 20 | |
| 1,2-Dichloroethane | ug/L | <168 | 50000 | 50000 | 53400 | 50400 | 107 | 101 | 70-130 | 6 | 20 | |
| 1,2-Dichloropropane | ug/L | <233 | 50000 | 50000 | 53300 | 51500 | 107 | 103 | 70-130 | 4 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <500 | 50000 | 50000 | 48700 | 49400 | 97 | 99 | 70-131 | 1 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <500 | 50000 | 50000 | 48500 | 48400 | 97 | 97 | 70-130 | 0 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: TD CR 3RD QTR
Pace Project No.: 40136240

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1373785 1373786

| Parameter | Units | 40136240002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | <500 | 50000 | 50000 | 54700 | 53200 | 109 | 106 | 57-138 | 3 | 20 | |
| Bromodichloromethane | ug/L | <500 | 50000 | 50000 | 53900 | 55200 | 108 | 110 | 70-130 | 2 | 20 | |
| Bromoform | ug/L | <500 | 50000 | 50000 | 46700 | 46500 | 93 | 93 | 70-130 | 0 | 20 | |
| Bromomethane | ug/L | <2430 | 50000 | 50000 | 24900 | 24600 | 50 | 49 | 33-130 | 1 | 27 | |
| Carbon tetrachloride | ug/L | <500 | 50000 | 50000 | 45900 | 43700 | 92 | 87 | 70-138 | 5 | 20 | |
| Chlorobenzene | ug/L | <500 | 50000 | 50000 | 50700 | 50400 | 101 | 101 | 70-130 | 1 | 20 | |
| Chloroethane | ug/L | 18900 | 50000 | 50000 | 61800 | 57000 | 86 | 76 | 51-130 | 8 | 20 | |
| Chloroform | ug/L | <2500 | 50000 | 50000 | 54100 | 50700 | 108 | 101 | 70-130 | 7 | 20 | |
| Chloromethane | ug/L | <500 | 50000 | 50000 | 47300 | 44000 | 95 | 88 | 25-132 | 7 | 20 | |
| cis-1,2-Dichloroethene | ug/L | <256 | 50000 | 50000 | 50900 | 46800 | 102 | 93 | 61-140 | 9 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <500 | 50000 | 50000 | 57400 | 58500 | 115 | 117 | 70-130 | 2 | 20 | |
| Dibromochloromethane | ug/L | <500 | 50000 | 50000 | 45500 | 45400 | 91 | 91 | 70-130 | 0 | 20 | |
| Dichlorodifluoromethane | ug/L | <224 | 50000 | 50000 | 34900 | 32100 | 70 | 64 | 23-130 | 8 | 20 | |
| Ethylbenzene | ug/L | <500 | 50000 | 50000 | 55900 | 54700 | 112 | 109 | 70-138 | 2 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <143 | 50000 | 50000 | 55700 | 55200 | 111 | 110 | 70-152 | 1 | 20 | |
| m&p-Xylene | ug/L | <1000 | 100000 | 100000 | 106000 | 106000 | 106 | 106 | 70-140 | 0 | 20 | |
| Methyl-tert-butyl ether | ug/L | <174 | 50000 | 50000 | 58400 | 54400 | 117 | 109 | 66-139 | 7 | 20 | |
| Methylene Chloride | ug/L | 320J | 50000 | 50000 | 50600 | 49000 | 101 | 97 | 70-130 | 3 | 20 | |
| o-Xylene | ug/L | <500 | 50000 | 50000 | 52200 | 51000 | 104 | 102 | 70-134 | 2 | 20 | |
| Styrene | ug/L | <500 | 50000 | 50000 | 50400 | 49800 | 101 | 100 | 70-138 | 1 | 20 | |
| Tetrachloroethene | ug/L | <500 | 50000 | 50000 | 45800 | 43900 | 92 | 88 | 70-148 | 4 | 20 | |
| Toluene | ug/L | <500 | 50000 | 50000 | 52800 | 52000 | 105 | 104 | 70-130 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <257 | 50000 | 50000 | 48300 | 46800 | 97 | 94 | 70-133 | 3 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <230 | 50000 | 50000 | 54600 | 53500 | 109 | 107 | 69-130 | 2 | 20 | |
| Trichloroethene | ug/L | <331 | 50000 | 50000 | 53100 | 53800 | 106 | 108 | 70-131 | 1 | 20 | |
| Trichlorofluoromethane | ug/L | <185 | 50000 | 50000 | 48100 | 46500 | 96 | 93 | 50-150 | 3 | 20 | |
| Vinyl chloride | ug/L | 3660 | 50000 | 50000 | 50600 | 48800 | 94 | 90 | 49-133 | 4 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | | | 105 | 107 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 100 | 93 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 102 | 102 | 70-130 | | | |

**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

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# QUALIFIERS

Project: TD CR 3RD QTR
Pace Project No.: 40136240

## 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.

## ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

**Pace Analytical Services, Inc.**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TD CR 3RD QTR
Pace Project No.: 40136240

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40136240001** | **CR-1** | EPA 8260 | 231639 | | |
| **40136240002** | **CR-2** | EPA 8260 | 231639 | | |
| **40136240003** | **CR-3** | EPA 8260 | 231639 | | |
| **40136240004** | **CR-4** | EPA 8260 | 231639 | | |
| **40136240005** | **CR-5** | EPA 8260 | 231639 | | |
| **40136240006** | **TRIP BLANK** | EPA 8260 | 231639 | | |

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical® www.pacelabs.com

# CHAIN OF CUSTODY

401360240



*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

| (Please Print Clearly) | |
|---|---|
| Company Name: | Environmental Audits Inc. |
| Branch/Location: | West Allis WI |
| Project Contact: | Ed Raymond |
| Phone: | 414-226-5563 |
| Project Number: | Verbal |
| Project Name: | TD CR 3rd Qtr |
| Project State: | WI Stephanie |
| Sampled By (Print): | Wagner |
| Sampled By (Sign): | |
| PO #: | Regulatory Program: |

| Quote #: | |
|---|---|
| Mail To Contact: | John Ruetz |
| Mail To Company: | Environmental Audits |
| Mail To Address: | 11327 W. Lincoln Ave West Allis WI 53227 |
| Invoice To Contact: | John Ruetz |
| Invoice To Company: | Environmental Audits |
| Invoice To Address: | SAME AS ABOVE |
| Invoice To Phone: | (414) 491-4282 |

**Data Package Options** (billable)
☐ EPA Level III
☐ EPA Level IV

**MS/MSD**
☐ On your sample (billable)
☐ NOT needed on your sample

**Matrix Codes**
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

| PACE LAB # | CLIENT FIELD ID | COLLECTION DATE | COLLECTION TIME | MATRIX | Analyses Requested: Y/N | Pick Letter | CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile # |
|---|---|---|---|---|---|---|---|---|---|
| 001 | CR-1 | 8/2/16 | | GW | N | B | 3-40mlVB | | |
| 002 | CR-2 | 8/2/16 | | | | | | | |
| 003 | CR-3 | 8/2/16 | | | | | | | |
| 004 | CR-4 | 8/2/16 | | | | | | | |
| 005 | CR-5 | 8/2/16 | | | | | | | |
| 006 | ① Trip Blank | | | | | | 2-40mlVB | | |
| | ① In shipment Lab added to COC. 8/4/16 SMW | | | | | | | | |

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

| Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|
| [illegible] | | | |
| Stephanie Wagner | 8/3/16 | Mary Fannin | 8/3/16 1124 |
| Mary Fannin | 8/3/16 1430 | | |
| [illegible] | 8-4-16 1000 | Susan K Ulfig Pad | 8-4-16 1000 |

PACE Project No.
401360240

Receipt Temp = R0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / ~~Not Present~~
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

# Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Client Name: Enviromental Audits

Project # WO#: 40136240

40136240

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used: N/A Type of Ice: (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: ROT /Corr: Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 8-4-16
Initials: SEW

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°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: 8/4/16 SEW | ☒Yes ☐No ☐N/A | 3. No collect time 8-4-16 SW |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| - VOA Samples frozen upon receipt | ☐Yes ☐No | Date/Time: |
| **Short Hold Time Analysis (<72hr):** | ☐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 | |
| -Pace IR Containers Used: | ☐Yes ☐No ☒N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☐N/A | 11. |
| Sample Labels match COC: | ☐Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: W | | |
| All containers needing preservation have been checked. (Non-Compliance noted in 13.) | ☐Yes ☐No ☒N/A | 13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct |
| All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER: | ☒Yes ☐No | Initial when completed / Lab Std #ID of preservative / Date/ Time: |
| Headspace in VOA Vials ( >6mm): | ☒Yes ☐No ☐N/A | 14. 001 - 1 vial. 003 - 2 vials 8-4-16 SW |
| Trip Blank Present: | ☒Yes ☐No ☐N/A | 15. In shipment Lab added to COC. 8-4-16 SW |
| Trip Blank Custody Seals Present | ☒Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): 360 | | |

**Client Notification/ Resolution:** If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

**Project Manager Review:** AMH for DM **Date:** 8/4/16

F-GB-C-031-Rev.03 (9April2015) SCUR Form

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 18, 2016

Ed Raymond
Environmental Audits, Inc
1409 Hillcrest Circle
Racine, WI 53406

RE: Project: 1642 TD P3 CR
Pace Project No.: 40141908

Dear Ed Raymond:
Enclosed are the analytical results for sample(s) received by the laboratory on November 11, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures

cc: John Ruetz, Environmental Audits Inc

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Green Bay Certification IDs**

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## SAMPLE SUMMARY

Project: 1642 TD P3 CR
Pace Project No.: 40141908

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **40141908001** | **CR-1** | Water | 11/10/16 13:15 | 11/11/16 16:40 |
| **40141908002** | **CR-2** | Water | 11/10/16 13:00 | 11/11/16 16:40 |
| **40141908003** | **CR-3** | Water | 11/10/16 13:30 | 11/11/16 16:40 |
| **40141908004** | **CR-4** | Water | 11/10/16 12:45 | 11/11/16 16:40 |
| **40141908005** | **CR-5** | Water | 11/10/16 12:30 | 11/11/16 16:40 |
| **40141908006** | **TB** | Water | 11/10/16 00:00 | 11/11/16 16:40 |

**Pace Analytical Services, LLC**
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(920)469-2436

## SAMPLE ANALYTE COUNT

Project: 1642 TD P3 CR
Pace Project No.: 40141908

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| **40141908001** | **CR-1** | EPA 8260 | MDS | 64 |
| **40141908002** | **CR-2** | EPA 8260 | MDS | 64 |
| **40141908003** | **CR-3** | EPA 8260 | HNW | 64 |
| **40141908004** | **CR-4** | EPA 8260 | MDS | 64 |
| **40141908005** | **CR-5** | EPA 8260 | MDS | 64 |
| **40141908006** | **TB** | EPA 8260 | MDS | 64 |

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-1** **Lab ID: 40141908001** Collected: 11/10/16 13:15 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 15:43 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 11/16/16 15:43 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 11/16/16 15:43 | 79-00-5 | |
| 1,1-Dichloroethane | **0.47J** | ug/L | 1.0 | 0.24 | 1 | | 11/16/16 15:43 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 11/16/16 15:43 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 11/16/16 15:43 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 15:43 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 15:43 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 15:43 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 15:43 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 15:43 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 15:43 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 11/16/16 15:43 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 11/16/16 15:43 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 15:43 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 11/16/16 15:43 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 11/16/16 15:43 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 11/16/16 15:43 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 15:43 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 11/16/16 15:43 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 11/16/16 15:43 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 15:43 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 11/16/16 15:43 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 15:43 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 15:43 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 15:43 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-1** **Lab ID: 40141908001** Collected: 11/10/16 13:15 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 108-88-3 | |
| Trichloroethene | **0.93J** | ug/L | 1.0 | 0.33 | 1 | | 11/16/16 15:43 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 15:43 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 15:43 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 15:43 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 11/16/16 15:43 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 15:43 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 15:43 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 15:43 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 15:43 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 15:43 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 95 | % | 70-130 | | 1 | | 11/16/16 15:43 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 11/16/16 15:43 | 1868-53-7 | |
| Toluene-d8 (S) | 101 | % | 70-130 | | 1 | | 11/16/16 15:43 | 2037-26-5 | |

**Sample: CR-2** **Lab ID: 40141908002** Collected: 11/10/16 13:00 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:04 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 11/16/16 16:04 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 11/16/16 16:04 | 79-00-5 | |
| 1,1-Dichloroethane | **2.1** | ug/L | 1.0 | 0.24 | 1 | | 11/16/16 16:04 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 11/16/16 16:04 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 11/16/16 16:04 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:04 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:04 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:04 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:04 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:04 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:04 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-2** **Lab ID: 40141908002** Collected: 11/10/16 13:00 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 11/16/16 16:04 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 11/16/16 16:04 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:04 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 11/16/16 16:04 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 11/16/16 16:04 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 11/16/16 16:04 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:04 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 11/16/16 16:04 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 11/16/16 16:04 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:04 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 11/16/16 16:04 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:04 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:04 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:04 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 11/16/16 16:04 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:04 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:04 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:04 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 11/16/16 16:04 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:04 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:04 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:04 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:04 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:04 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | | 11/16/16 16:04 | 460-00-4 | |
| Dibromofluoromethane (S) | 104 | % | 70-130 | | 1 | | 11/16/16 16:04 | 1868-53-7 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 11/16/16 16:04 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-3** **Lab ID: 40141908003** Collected: 11/10/16 13:30 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<181** | ug/L | 1000 | 181 | 1000 | | 11/18/16 00:38 | 630-20-6 | |
| 1,1,1-Trichloroethane | **35100** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<249** | ug/L | 1000 | 249 | 1000 | | 11/18/16 00:38 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<197** | ug/L | 1000 | 197 | 1000 | | 11/18/16 00:38 | 79-00-5 | |
| 1,1-Dichloroethane | **84600** | ug/L | 1000 | 242 | 1000 | | 11/18/16 00:38 | 75-34-3 | |
| 1,1-Dichloroethene | **4030** | ug/L | 1000 | 410 | 1000 | | 11/18/16 00:38 | 75-35-4 | |
| 1,1-Dichloropropene | **<441** | ug/L | 1000 | 441 | 1000 | | 11/18/16 00:38 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2130** | ug/L | 5000 | 2130 | 1000 | | 11/18/16 00:38 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2210** | ug/L | 5000 | 2210 | 1000 | | 11/18/16 00:38 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2160** | ug/L | 5000 | 2160 | 1000 | | 11/18/16 00:38 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<178** | ug/L | 1000 | 178 | 1000 | | 11/18/16 00:38 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 95-50-1 | |
| 1,2-Dichloroethane | **<168** | ug/L | 1000 | 168 | 1000 | | 11/18/16 00:38 | 107-06-2 | |
| 1,2-Dichloropropane | **<233** | ug/L | 1000 | 233 | 1000 | | 11/18/16 00:38 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 541-73-1 | |
| 1,3-Dichloropropane | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 106-46-7 | |
| 2,2-Dichloropropane | **<484** | ug/L | 1000 | 484 | 1000 | | 11/18/16 00:38 | 594-20-7 | |
| 2-Chlorotoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 95-49-8 | |
| 4-Chlorotoluene | **<214** | ug/L | 1000 | 214 | 1000 | | 11/18/16 00:38 | 106-43-4 | |
| Benzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 71-43-2 | |
| Bromobenzene | **<230** | ug/L | 1000 | 230 | 1000 | | 11/18/16 00:38 | 108-86-1 | |
| Bromochloromethane | **<340** | ug/L | 1000 | 340 | 1000 | | 11/18/16 00:38 | 74-97-5 | |
| Bromodichloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 75-27-4 | |
| Bromoform | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 75-25-2 | |
| Bromomethane | **<2430** | ug/L | 5000 | 2430 | 1000 | | 11/18/16 00:38 | 74-83-9 | |
| Carbon tetrachloride | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 56-23-5 | |
| Chlorobenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 108-90-7 | |
| Chloroethane | **20800** | ug/L | 1000 | 375 | 1000 | | 11/18/16 00:38 | 75-00-3 | |
| Chloroform | **<2500** | ug/L | 5000 | 2500 | 1000 | | 11/18/16 00:38 | 67-66-3 | |
| Chloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 74-87-3 | |
| Dibromochloromethane | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 124-48-1 | |
| Dibromomethane | **<427** | ug/L | 1000 | 427 | 1000 | | 11/18/16 00:38 | 74-95-3 | |
| Dichlorodifluoromethane | **<224** | ug/L | 1000 | 224 | 1000 | | 11/18/16 00:38 | 75-71-8 | |
| Diisopropyl ether | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 108-20-3 | |
| Ethylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2110** | ug/L | 5000 | 2110 | 1000 | | 11/18/16 00:38 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<143** | ug/L | 1000 | 143 | 1000 | | 11/18/16 00:38 | 98-82-8 | |
| Methyl-tert-butyl ether | **<174** | ug/L | 1000 | 174 | 1000 | | 11/18/16 00:38 | 1634-04-4 | |
| Methylene Chloride | **656J** | ug/L | 1000 | 233 | 1000 | | 11/18/16 00:38 | 75-09-2 | |
| Naphthalene | **<2500** | ug/L | 5000 | 2500 | 1000 | | 11/18/16 00:38 | 91-20-3 | |
| Styrene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 100-42-5 | |
| Tetrachloroethene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-3** **Lab ID: 40141908003** Collected: 11/10/16 13:30 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 108-88-3 | |
| Trichloroethene | **<331** | ug/L | 1000 | 331 | 1000 | | 11/18/16 00:38 | 79-01-6 | |
| Trichlorofluoromethane | **<185** | ug/L | 1000 | 185 | 1000 | | 11/18/16 00:38 | 75-69-4 | |
| Vinyl chloride | **3460** | ug/L | 1000 | 176 | 1000 | | 11/18/16 00:38 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<256** | ug/L | 1000 | 256 | 1000 | | 11/18/16 00:38 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 10061-01-5 | |
| m&p-Xylene | **<1000** | ug/L | 2000 | 1000 | 1000 | | 11/18/16 00:38 | 179601-23-1 | |
| n-Butylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 104-51-8 | |
| n-Propylbenzene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 103-65-1 | |
| o-Xylene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 95-47-6 | |
| p-Isopropyltoluene | **<500** | ug/L | 1000 | 500 | 1000 | | 11/18/16 00:38 | 99-87-6 | |
| sec-Butylbenzene | **<2190** | ug/L | 5000 | 2190 | 1000 | | 11/18/16 00:38 | 135-98-8 | |
| tert-Butylbenzene | **<180** | ug/L | 1000 | 180 | 1000 | | 11/18/16 00:38 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<257** | ug/L | 1000 | 257 | 1000 | | 11/18/16 00:38 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<230** | ug/L | 1000 | 230 | 1000 | | 11/18/16 00:38 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 92 | % | 70-130 | | 1000 | | 11/18/16 00:38 | 460-00-4 | |
| Dibromofluoromethane (S) | 106 | % | 70-130 | | 1000 | | 11/18/16 00:38 | 1868-53-7 | |
| Toluene-d8 (S) | 96 | % | 70-130 | | 1000 | | 11/18/16 00:38 | 2037-26-5 | |

**Sample: CR-4** **Lab ID: 40141908004** Collected: 11/10/16 12:45 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:25 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 11/16/16 16:25 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 11/16/16 16:25 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 11/16/16 16:25 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 11/16/16 16:25 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 11/16/16 16:25 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:25 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:25 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:25 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:25 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:25 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:25 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-4** **Lab ID: 40141908004** Collected: 11/10/16 12:45 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 11/16/16 16:25 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 11/16/16 16:25 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:25 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 11/16/16 16:25 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 11/16/16 16:25 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 11/16/16 16:25 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:25 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 11/16/16 16:25 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 11/16/16 16:25 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:25 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 11/16/16 16:25 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:25 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:25 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:25 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 11/16/16 16:25 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:25 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:25 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:25 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 11/16/16 16:25 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:25 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:25 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:25 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:25 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:25 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 94 | % | 70-130 | | 1 | | 11/16/16 16:25 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 11/16/16 16:25 | 1868-53-7 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 11/16/16 16:25 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-5** **Lab ID: 40141908005** Collected: 11/10/16 12:30 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:46 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 11/16/16 16:46 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 11/16/16 16:46 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 11/16/16 16:46 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 11/16/16 16:46 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 11/16/16 16:46 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:46 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:46 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:46 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:46 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:46 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:46 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 142-28-9 | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 11/16/16 16:46 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 11/16/16 16:46 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:46 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 11/16/16 16:46 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 11/16/16 16:46 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 11/16/16 16:46 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:46 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 11/16/16 16:46 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 11/16/16 16:46 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 16:46 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 11/16/16 16:46 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 16:46 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:46 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 16:46 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 127-18-4 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: CR-5** **Lab ID: 40141908005** Collected: 11/10/16 12:30 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 11/16/16 16:46 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:46 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:46 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:46 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 11/16/16 16:46 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 16:46 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 16:46 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 16:46 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 16:46 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 16:46 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 93 | % | 70-130 | | 1 | | 11/16/16 16:46 | 460-00-4 | |
| Dibromofluoromethane (S) | 103 | % | 70-130 | | 1 | | 11/16/16 16:46 | 1868-53-7 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 11/16/16 16:46 | 2037-26-5 | |

**Sample: TB** **Lab ID: 40141908006** Collected: 11/10/16 00:00 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 13:37 | 630-20-6 | |
| 1,1,1-Trichloroethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | **<0.25** | ug/L | 1.0 | 0.25 | 1 | | 11/16/16 13:37 | 79-34-5 | |
| 1,1,2-Trichloroethane | **<0.20** | ug/L | 1.0 | 0.20 | 1 | | 11/16/16 13:37 | 79-00-5 | |
| 1,1-Dichloroethane | **<0.24** | ug/L | 1.0 | 0.24 | 1 | | 11/16/16 13:37 | 75-34-3 | |
| 1,1-Dichloroethene | **<0.41** | ug/L | 1.0 | 0.41 | 1 | | 11/16/16 13:37 | 75-35-4 | |
| 1,1-Dichloropropene | **<0.44** | ug/L | 1.0 | 0.44 | 1 | | 11/16/16 13:37 | 563-58-6 | |
| 1,2,3-Trichlorobenzene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 13:37 | 87-61-6 | |
| 1,2,3-Trichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 96-18-4 | |
| 1,2,4-Trichlorobenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 13:37 | 120-82-1 | |
| 1,2,4-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 95-63-6 | |
| 1,2-Dibromo-3-chloropropane | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 13:37 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 13:37 | 106-93-4 | |
| 1,2-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 95-50-1 | |
| 1,2-Dichloroethane | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 13:37 | 107-06-2 | |
| 1,2-Dichloropropane | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 13:37 | 78-87-5 | |
| 1,3,5-Trimethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 108-67-8 | |
| 1,3-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 541-73-1 | |
| 1,3-Dichloropropane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 142-28-9 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## ANALYTICAL RESULTS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**Sample: TB** **Lab ID: 40141908006** Collected: 11/10/16 00:00 Received: 11/11/16 16:40 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 106-46-7 | |
| 2,2-Dichloropropane | **<0.48** | ug/L | 1.0 | 0.48 | 1 | | 11/16/16 13:37 | 594-20-7 | |
| 2-Chlorotoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 95-49-8 | |
| 4-Chlorotoluene | **<0.21** | ug/L | 1.0 | 0.21 | 1 | | 11/16/16 13:37 | 106-43-4 | |
| Benzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 71-43-2 | |
| Bromobenzene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 13:37 | 108-86-1 | |
| Bromochloromethane | **<0.34** | ug/L | 1.0 | 0.34 | 1 | | 11/16/16 13:37 | 74-97-5 | |
| Bromodichloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 75-27-4 | |
| Bromoform | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 75-25-2 | |
| Bromomethane | **<2.4** | ug/L | 5.0 | 2.4 | 1 | | 11/16/16 13:37 | 74-83-9 | |
| Carbon tetrachloride | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 56-23-5 | |
| Chlorobenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 108-90-7 | |
| Chloroethane | **<0.37** | ug/L | 1.0 | 0.37 | 1 | | 11/16/16 13:37 | 75-00-3 | |
| Chloroform | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 13:37 | 67-66-3 | |
| Chloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 74-87-3 | |
| Dibromochloromethane | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 124-48-1 | |
| Dibromomethane | **<0.43** | ug/L | 1.0 | 0.43 | 1 | | 11/16/16 13:37 | 74-95-3 | |
| Dichlorodifluoromethane | **<0.22** | ug/L | 1.0 | 0.22 | 1 | | 11/16/16 13:37 | 75-71-8 | |
| Diisopropyl ether | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 108-20-3 | |
| Ethylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 100-41-4 | |
| Hexachloro-1,3-butadiene | **<2.1** | ug/L | 5.0 | 2.1 | 1 | | 11/16/16 13:37 | 87-68-3 | |
| Isopropylbenzene (Cumene) | **<0.14** | ug/L | 1.0 | 0.14 | 1 | | 11/16/16 13:37 | 98-82-8 | |
| Methyl-tert-butyl ether | **<0.17** | ug/L | 1.0 | 0.17 | 1 | | 11/16/16 13:37 | 1634-04-4 | |
| Methylene Chloride | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 13:37 | 75-09-2 | |
| Naphthalene | **<2.5** | ug/L | 5.0 | 2.5 | 1 | | 11/16/16 13:37 | 91-20-3 | |
| Styrene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 100-42-5 | |
| Tetrachloroethene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 127-18-4 | |
| Toluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 108-88-3 | |
| Trichloroethene | **<0.33** | ug/L | 1.0 | 0.33 | 1 | | 11/16/16 13:37 | 79-01-6 | |
| Trichlorofluoromethane | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 13:37 | 75-69-4 | |
| Vinyl chloride | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 13:37 | 75-01-4 | |
| cis-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 13:37 | 156-59-2 | |
| cis-1,3-Dichloropropene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 10061-01-5 | |
| m&p-Xylene | **<1.0** | ug/L | 2.0 | 1.0 | 1 | | 11/16/16 13:37 | 179601-23-1 | |
| n-Butylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 104-51-8 | |
| n-Propylbenzene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 103-65-1 | |
| o-Xylene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 95-47-6 | |
| p-Isopropyltoluene | **<0.50** | ug/L | 1.0 | 0.50 | 1 | | 11/16/16 13:37 | 99-87-6 | |
| sec-Butylbenzene | **<2.2** | ug/L | 5.0 | 2.2 | 1 | | 11/16/16 13:37 | 135-98-8 | |
| tert-Butylbenzene | **<0.18** | ug/L | 1.0 | 0.18 | 1 | | 11/16/16 13:37 | 98-06-6 | |
| trans-1,2-Dichloroethene | **<0.26** | ug/L | 1.0 | 0.26 | 1 | | 11/16/16 13:37 | 156-60-5 | |
| trans-1,3-Dichloropropene | **<0.23** | ug/L | 1.0 | 0.23 | 1 | | 11/16/16 13:37 | 10061-02-6 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 95 | % | 70-130 | | 1 | | 11/16/16 13:37 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 11/16/16 13:37 | 1868-53-7 | |
| Toluene-d8 (S) | 100 | % | 70-130 | | 1 | | 11/16/16 13:37 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

QC Batch: 241185 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40141908001, 40141908002, 40141908004, 40141908005, 40141908006

METHOD BLANK: 1430212 Matrix: Water
Associated Lab Samples: 40141908001, 40141908002, 40141908004, 40141908005, 40141908006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 11/16/16 11:31 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 11/16/16 11:31 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 11/16/16 11:31 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 11/16/16 11:31 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 11/16/16 11:31 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 11/16/16 11:31 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 11/16/16 11:31 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 11/16/16 11:31 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 11/16/16 11:31 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 11/16/16 11:31 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 11/16/16 11:31 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 11/16/16 11:31 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 11/16/16 11:31 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 11/16/16 11:31 | |
| Benzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 11/16/16 11:31 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 11/16/16 11:31 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Bromoform | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 11/16/16 11:31 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 11/16/16 11:31 | |
| Chloroform | ug/L | <2.5 | 5.0 | 11/16/16 11:31 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 11/16/16 11:31 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 11/16/16 11:31 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 11/16/16 11:31 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

METHOD BLANK: 1430212 Matrix: Water
Associated Lab Samples: 40141908001, 40141908002, 40141908004, 40141908005, 40141908006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 11/16/16 11:31 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 11/16/16 11:31 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 11/16/16 11:31 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 11/16/16 11:31 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 11/16/16 11:31 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 11/16/16 11:31 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 11/16/16 11:31 | |
| Styrene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 11/16/16 11:31 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| Toluene | ug/L | <0.50 | 1.0 | 11/16/16 11:31 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 11/16/16 11:31 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 11/16/16 11:31 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 11/16/16 11:31 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 11/16/16 11:31 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 11/16/16 11:31 | |
| 4-Bromofluorobenzene (S) | % | 95 | 70-130 | 11/16/16 11:31 | |
| Dibromofluoromethane (S) | % | 102 | 70-130 | 11/16/16 11:31 | |
| Toluene-d8 (S) | % | 100 | 70-130 | 11/16/16 11:31 | |

LABORATORY CONTROL SAMPLE: 1430213

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 50 | 52.9 | 106 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 48.5 | 97 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 50.3 | 101 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 53.8 | 108 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 48.7 | 97 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 48.7 | 97 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 46.9 | 94 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 50.7 | 101 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 50.4 | 101 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 49.3 | 99 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 50.5 | 101 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 49.0 | 98 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 49.8 | 100 | 70-130 | |
| Benzene | ug/L | 50 | 51.2 | 102 | 60-135 | |
| Bromodichloromethane | ug/L | 50 | 51.3 | 103 | 70-130 | |
| Bromoform | ug/L | 50 | 46.6 | 93 | 70-130 | |
| Bromomethane | ug/L | 50 | 33.8 | 68 | 33-130 | |

**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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

LABORATORY CONTROL SAMPLE: 1430213

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 50 | 52.0 | 104 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 51.1 | 102 | 70-130 | |
| Chloroethane | ug/L | 50 | 45.9 | 92 | 51-130 | |
| Chloroform | ug/L | 50 | 52.8 | 106 | 70-130 | |
| Chloromethane | ug/L | 50 | 32.7 | 65 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 51.6 | 103 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 49.3 | 99 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 18.4 | 37 | 23-130 | |
| Ethylbenzene | ug/L | 50 | 51.4 | 103 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 51.2 | 102 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 103 | 103 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 54.8 | 110 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 51.1 | 102 | 70-130 | |
| o-Xylene | ug/L | 50 | 51.3 | 103 | 70-134 | |
| Styrene | ug/L | 50 | 50.6 | 101 | 70-133 | |
| Tetrachloroethene | ug/L | 50 | 49.2 | 98 | 70-138 | |
| Toluene | ug/L | 50 | 51.0 | 102 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 52.0 | 104 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 49.8 | 100 | 69-130 | |
| Trichloroethene | ug/L | 50 | 51.3 | 103 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 48.5 | 97 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 41.8 | 84 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 97 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 104 | 70-130 | |
| Toluene-d8 (S) | % | | | 100 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430495 1430496

| Parameter | Units | 40141908001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | <0.50 | 50 | 50 | 52.5 | 52.2 | 105 | 104 | 70-134 | 1 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 50 | 50 | 51.9 | 52.1 | 104 | 104 | 67-130 | 0 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 50 | 50 | 50.7 | 51.0 | 101 | 102 | 70-130 | 1 | 20 | |
| 1,1-Dichloroethane | ug/L | 0.47J | 50 | 50 | 53.9 | 53.5 | 107 | 106 | 70-134 | 1 | 20 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 50 | 50 | 48.3 | 48.3 | 97 | 97 | 68-136 | 0 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 50 | 50 | 47.4 | 49.5 | 95 | 99 | 62-139 | 4 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 50 | 50 | 50.9 | 52.0 | 102 | 104 | 50-150 | 2 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 50 | 50 | 51.7 | 51.3 | 103 | 103 | 70-130 | 1 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 49.5 | 50.4 | 99 | 101 | 70-130 | 2 | 20 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 50 | 50 | 50.6 | 50.2 | 101 | 100 | 70-130 | 1 | 20 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 50 | 50 | 49.0 | 50.8 | 98 | 102 | 70-130 | 4 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 48.3 | 49.4 | 97 | 99 | 70-131 | 2 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 49.1 | 50.5 | 98 | 101 | 70-130 | 3 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1430495 1430496

| Parameter | Units | 40141908001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.50 | 50 | 50 | 50.7 | 51.3 | 101 | 103 | 57-138 | 1 | 20 | |
| Bromodichloromethane | ug/L | <0.50 | 50 | 50 | 50.6 | 50.5 | 101 | 101 | 70-130 | 0 | 20 | |
| Bromoform | ug/L | <0.50 | 50 | 50 | 47.6 | 47.9 | 95 | 96 | 70-130 | 1 | 20 | |
| Bromomethane | ug/L | <2.4 | 50 | 50 | 35.5 | 32.6 | 71 | 65 | 33-130 | 9 | 27 | |
| Carbon tetrachloride | ug/L | <0.50 | 50 | 50 | 53.3 | 52.8 | 107 | 106 | 70-138 | 1 | 20 | |
| Chlorobenzene | ug/L | <0.50 | 50 | 50 | 50.1 | 51.2 | 100 | 102 | 70-130 | 2 | 20 | |
| Chloroethane | ug/L | <0.37 | 50 | 50 | 47.2 | 47.4 | 94 | 95 | 51-130 | 0 | 20 | |
| Chloroform | ug/L | <2.5 | 50 | 50 | 52.6 | 51.8 | 105 | 104 | 70-130 | 2 | 20 | |
| Chloromethane | ug/L | <0.50 | 50 | 50 | 34.7 | 34.4 | 69 | 69 | 25-132 | 1 | 20 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 51.6 | 51.0 | 103 | 102 | 61-140 | 1 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 50 | 50 | 48.5 | 49.0 | 97 | 98 | 70-130 | 1 | 20 | |
| Dibromochloromethane | ug/L | <0.50 | 50 | 50 | 50.0 | 49.0 | 100 | 98 | 70-130 | 2 | 20 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 50 | 50 | 17.3 | 16.8 | 35 | 34 | 23-130 | 3 | 20 | |
| Ethylbenzene | ug/L | <0.50 | 50 | 50 | 50.5 | 51.2 | 101 | 102 | 70-138 | 1 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 50 | 50 | 49.2 | 50.7 | 98 | 101 | 70-152 | 3 | 20 | |
| m&p-Xylene | ug/L | <1.0 | 100 | 100 | 102 | 104 | 102 | 104 | 70-140 | 2 | 20 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 50 | 50 | 55.9 | 55.1 | 112 | 110 | 66-139 | 1 | 20 | |
| Methylene Chloride | ug/L | <0.23 | 50 | 50 | 52.0 | 51.3 | 104 | 103 | 70-130 | 1 | 20 | |
| o-Xylene | ug/L | <0.50 | 50 | 50 | 50.6 | 51.8 | 101 | 104 | 70-134 | 2 | 20 | |
| Styrene | ug/L | <0.50 | 50 | 50 | 49.8 | 51.8 | 100 | 104 | 70-138 | 4 | 20 | |
| Tetrachloroethene | ug/L | <0.50 | 50 | 50 | 48.6 | 48.4 | 97 | 97 | 70-148 | 1 | 20 | |
| Toluene | ug/L | <0.50 | 50 | 50 | 50.4 | 51.2 | 101 | 102 | 70-130 | 2 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 52.6 | 52.0 | 105 | 104 | 70-133 | 1 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 50 | 50 | 49.2 | 49.2 | 98 | 98 | 69-130 | 0 | 20 | |
| Trichloroethene | ug/L | 0.93J | 50 | 50 | 50.6 | 51.7 | 99 | 101 | 70-131 | 2 | 20 | |
| Trichlorofluoromethane | ug/L | <0.18 | 50 | 50 | 48.9 | 47.9 | 98 | 96 | 50-150 | 2 | 20 | |
| Vinyl chloride | ug/L | <0.18 | 50 | 50 | 41.0 | 40.8 | 82 | 82 | 49-133 | 1 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | | | 98 | 100 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 107 | 104 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 100 | 100 | 70-130 | | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

QC Batch: 241643 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40141908003

METHOD BLANK: 1432616 Matrix: Water
Associated Lab Samples: 40141908003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | <0.18 | 1.0 | 11/17/16 14:34 | |
| 1,1,1-Trichloroethane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 1.0 | 11/17/16 14:34 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 1.0 | 11/17/16 14:34 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 1.0 | 11/17/16 14:34 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 1.0 | 11/17/16 14:34 | |
| 1,1-Dichloropropene | ug/L | <0.44 | 1.0 | 11/17/16 14:34 | |
| 1,2,3-Trichlorobenzene | ug/L | <2.1 | 5.0 | 11/17/16 14:34 | |
| 1,2,3-Trichloropropane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 5.0 | 11/17/16 14:34 | |
| 1,2,4-Trimethylbenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 5.0 | 11/17/16 14:34 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 1.0 | 11/17/16 14:34 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 1.0 | 11/17/16 14:34 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 1.0 | 11/17/16 14:34 | |
| 1,3,5-Trimethylbenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,3-Dichloropropane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 2,2-Dichloropropane | ug/L | <0.48 | 1.0 | 11/17/16 14:34 | |
| 2-Chlorotoluene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| 4-Chlorotoluene | ug/L | <0.21 | 1.0 | 11/17/16 14:34 | |
| Benzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Bromobenzene | ug/L | <0.23 | 1.0 | 11/17/16 14:34 | |
| Bromochloromethane | ug/L | <0.34 | 1.0 | 11/17/16 14:34 | |
| Bromodichloromethane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Bromoform | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Bromomethane | ug/L | <2.4 | 5.0 | 11/17/16 14:34 | |
| Carbon tetrachloride | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Chlorobenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Chloroethane | ug/L | <0.37 | 1.0 | 11/17/16 14:34 | |
| Chloroform | ug/L | <2.5 | 5.0 | 11/17/16 14:34 | |
| Chloromethane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 11/17/16 14:34 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Dibromochloromethane | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Dibromomethane | ug/L | <0.43 | 1.0 | 11/17/16 14:34 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 1.0 | 11/17/16 14:34 | |
| Diisopropyl ether | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Ethylbenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

METHOD BLANK: 1432616 Matrix: Water
Associated Lab Samples: 40141908003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Hexachloro-1,3-butadiene | ug/L | <2.1 | 5.0 | 11/17/16 14:34 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 1.0 | 11/17/16 14:34 | |
| m&p-Xylene | ug/L | <1.0 | 2.0 | 11/17/16 14:34 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 1.0 | 11/17/16 14:34 | |
| Methylene Chloride | ug/L | <0.23 | 1.0 | 11/17/16 14:34 | |
| n-Butylbenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| n-Propylbenzene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Naphthalene | ug/L | <2.5 | 5.0 | 11/17/16 14:34 | |
| o-Xylene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| p-Isopropyltoluene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| sec-Butylbenzene | ug/L | <2.2 | 5.0 | 11/17/16 14:34 | |
| Styrene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| tert-Butylbenzene | ug/L | <0.18 | 1.0 | 11/17/16 14:34 | |
| Tetrachloroethene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| Toluene | ug/L | <0.50 | 1.0 | 11/17/16 14:34 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 1.0 | 11/17/16 14:34 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 1.0 | 11/17/16 14:34 | |
| Trichloroethene | ug/L | <0.33 | 1.0 | 11/17/16 14:34 | |
| Trichlorofluoromethane | ug/L | <0.18 | 1.0 | 11/17/16 14:34 | |
| Vinyl chloride | ug/L | <0.18 | 1.0 | 11/17/16 14:34 | |
| 4-Bromofluorobenzene (S) | % | 95 | 70-130 | 11/17/16 14:34 | |
| Dibromofluoromethane (S) | % | 109 | 70-130 | 11/17/16 14:34 | |
| Toluene-d8 (S) | % | 98 | 70-130 | 11/17/16 14:34 | |

LABORATORY CONTROL SAMPLE: 1432617

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | 50 | 53.0 | 106 | 70-131 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 47.4 | 95 | 67-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 49.3 | 99 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 52.0 | 104 | 70-133 | |
| 1,1-Dichloroethene | ug/L | 50 | 48.5 | 97 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 48.4 | 97 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 45.9 | 92 | 50-150 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 50.7 | 101 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 49.7 | 99 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 53.8 | 108 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 49.0 | 98 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 49.4 | 99 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 48.7 | 97 | 70-130 | |
| Benzene | ug/L | 50 | 53.8 | 108 | 60-135 | |
| Bromodichloromethane | ug/L | 50 | 50.7 | 101 | 70-130 | |
| Bromoform | ug/L | 50 | 43.9 | 88 | 70-130 | |
| Bromomethane | ug/L | 50 | 42.6 | 85 | 33-130 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

LABORATORY CONTROL SAMPLE: 1432617

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon tetrachloride | ug/L | 50 | 55.2 | 110 | 70-138 | |
| Chlorobenzene | ug/L | 50 | 49.6 | 99 | 70-130 | |
| Chloroethane | ug/L | 50 | 51.7 | 103 | 51-130 | |
| Chloroform | ug/L | 50 | 53.6 | 107 | 70-130 | |
| Chloromethane | ug/L | 50 | 45.5 | 91 | 25-132 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 52.7 | 105 | 69-130 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 45.2 | 90 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 50.8 | 102 | 70-130 | |
| Dichlorodifluoromethane | ug/L | 50 | 25.2 | 50 | 23-130 | |
| Ethylbenzene | ug/L | 50 | 52.3 | 105 | 70-136 | |
| Isopropylbenzene (Cumene) | ug/L | 50 | 53.3 | 107 | 70-140 | |
| m&p-Xylene | ug/L | 100 | 105 | 105 | 70-138 | |
| Methyl-tert-butyl ether | ug/L | 50 | 54.8 | 110 | 66-138 | |
| Methylene Chloride | ug/L | 50 | 51.6 | 103 | 70-130 | |
| o-Xylene | ug/L | 50 | 53.6 | 107 | 70-134 | |
| Styrene | ug/L | 50 | 50.1 | 100 | 70-133 | |
| Tetrachloroethene | ug/L | 50 | 48.2 | 96 | 70-138 | |
| Toluene | ug/L | 50 | 50.3 | 101 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 51.6 | 103 | 70-131 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 44.0 | 88 | 69-130 | |
| Trichloroethene | ug/L | 50 | 50.3 | 101 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 51.5 | 103 | 50-150 | |
| Vinyl chloride | ug/L | 50 | 47.4 | 95 | 49-130 | |
| 4-Bromofluorobenzene (S) | % | | | 99 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 110 | 70-130 | |
| Toluene-d8 (S) | % | | | 98 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1432699 1432700

| Parameter | Units | 40142158023 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ug/L | <0.50 | 50 | 50 | 49.3 | 52.5 | 99 | 105 | 70-134 | 6 | 20 | |
| 1,1,2,2-Tetrachloroethane | ug/L | <0.25 | 50 | 50 | 47.9 | 50.0 | 96 | 100 | 67-130 | 4 | 20 | |
| 1,1,2-Trichloroethane | ug/L | <0.20 | 50 | 50 | 49.2 | 51.5 | 98 | 103 | 70-130 | 4 | 20 | |
| 1,1-Dichloroethane | ug/L | <0.24 | 50 | 50 | 47.9 | 51.2 | 96 | 102 | 70-134 | 7 | 20 | |
| 1,1-Dichloroethene | ug/L | <0.41 | 50 | 50 | 47.3 | 50.4 | 95 | 101 | 68-136 | 6 | 20 | |
| 1,2,4-Trichlorobenzene | ug/L | <2.2 | 50 | 50 | 50.6 | 52.6 | 101 | 105 | 62-139 | 4 | 20 | |
| 1,2-Dibromo-3-chloropropane | ug/L | <2.2 | 50 | 50 | 47.2 | 48.8 | 94 | 98 | 50-150 | 3 | 20 | |
| 1,2-Dibromoethane (EDB) | ug/L | <0.18 | 50 | 50 | 50.7 | 52.9 | 101 | 106 | 70-130 | 4 | 20 | |
| 1,2-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 49.5 | 51.8 | 99 | 104 | 70-130 | 5 | 20 | |
| 1,2-Dichloroethane | ug/L | <0.17 | 50 | 50 | 49.7 | 52.8 | 99 | 106 | 70-130 | 6 | 20 | |
| 1,2-Dichloropropane | ug/L | <0.23 | 50 | 50 | 48.7 | 49.8 | 97 | 100 | 70-130 | 2 | 20 | |
| 1,3-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 49.4 | 51.1 | 99 | 102 | 70-131 | 3 | 20 | |
| 1,4-Dichlorobenzene | ug/L | <0.50 | 50 | 50 | 48.8 | 50.5 | 98 | 101 | 70-130 | 3 | 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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 1642 TD P3 CR
Pace Project No.: 40141908

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1432699 1432700

| Parameter | Units | 40142158023 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ug/L | <0.50 | 50 | 50 | 49.5 | 52.6 | 99 | 105 | 57-138 | 6 | 20 | |
| Bromodichloromethane | ug/L | <0.50 | 50 | 50 | 50.4 | 52.1 | 101 | 104 | 70-130 | 3 | 20 | |
| Bromoform | ug/L | <0.50 | 50 | 50 | 43.8 | 45.4 | 88 | 91 | 70-130 | 4 | 20 | |
| Bromomethane | ug/L | <2.4 | 50 | 50 | 48.0 | 54.5 | 96 | 109 | 33-130 | 13 | 27 | |
| Carbon tetrachloride | ug/L | <0.50 | 50 | 50 | 52.1 | 56.2 | 104 | 112 | 70-138 | 8 | 20 | |
| Chlorobenzene | ug/L | <0.50 | 50 | 50 | 49.5 | 51.1 | 99 | 102 | 70-130 | 3 | 20 | |
| Chloroethane | ug/L | <0.37 | 50 | 50 | 50.9 | 54.7 | 102 | 109 | 51-130 | 7 | 20 | |
| Chloroform | ug/L | <2.5 | 50 | 50 | 49.0 | 52.6 | 98 | 105 | 70-130 | 7 | 20 | |
| Chloromethane | ug/L | <0.50 | 50 | 50 | 52.4 | 56.3 | 105 | 113 | 25-132 | 7 | 20 | |
| cis-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 48.5 | 52.0 | 97 | 104 | 61-140 | 7 | 20 | |
| cis-1,3-Dichloropropene | ug/L | <0.50 | 50 | 50 | 46.0 | 47.5 | 92 | 95 | 70-130 | 3 | 20 | |
| Dibromochloromethane | ug/L | <0.50 | 50 | 50 | 50.8 | 52.2 | 102 | 104 | 70-130 | 3 | 20 | |
| Dichlorodifluoromethane | ug/L | <0.22 | 50 | 50 | 44.5 | 47.2 | 89 | 94 | 23-130 | 6 | 20 | |
| Ethylbenzene | ug/L | <0.50 | 50 | 50 | 51.8 | 53.9 | 104 | 108 | 70-138 | 4 | 20 | |
| Isopropylbenzene (Cumene) | ug/L | <0.14 | 50 | 50 | 52.7 | 54.9 | 105 | 110 | 70-152 | 4 | 20 | |
| m&p-Xylene | ug/L | <1.0 | 100 | 100 | 104 | 108 | 104 | 108 | 70-140 | 4 | 20 | |
| Methyl-tert-butyl ether | ug/L | <0.17 | 50 | 50 | 51.1 | 54.9 | 102 | 110 | 66-139 | 7 | 20 | |
| Methylene Chloride | ug/L | <0.23 | 50 | 50 | 47.6 | 50.8 | 95 | 102 | 70-130 | 7 | 20 | |
| o-Xylene | ug/L | <0.50 | 50 | 50 | 52.7 | 55.1 | 105 | 110 | 70-134 | 4 | 20 | |
| Styrene | ug/L | <0.50 | 50 | 50 | 49.3 | 51.2 | 99 | 102 | 70-138 | 4 | 20 | |
| Tetrachloroethene | ug/L | <0.50 | 50 | 50 | 49.2 | 51.0 | 98 | 102 | 70-148 | 4 | 20 | |
| Toluene | ug/L | <0.50 | 50 | 50 | 50.0 | 51.6 | 100 | 103 | 70-130 | 3 | 20 | |
| trans-1,2-Dichloroethene | ug/L | <0.26 | 50 | 50 | 48.5 | 51.8 | 97 | 104 | 70-133 | 6 | 20 | |
| trans-1,3-Dichloropropene | ug/L | <0.23 | 50 | 50 | 44.8 | 46.7 | 90 | 93 | 69-130 | 4 | 20 | |
| Trichloroethene | ug/L | <0.33 | 50 | 50 | 50.6 | 52.2 | 101 | 104 | 70-131 | 3 | 20 | |
| Trichlorofluoromethane | ug/L | <0.18 | 50 | 50 | 51.4 | 55.2 | 103 | 110 | 50-150 | 7 | 20 | |
| Vinyl chloride | ug/L | <0.18 | 50 | 50 | 52.8 | 56.5 | 106 | 113 | 49-133 | 7 | 20 | |
| 4-Bromofluorobenzene (S) | % | | | | | | 99 | 99 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 103 | 106 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 98 | 98 | 70-130 | | | |

**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

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

# QUALIFIERS

Project: 1642 TD P3 CR
Pace Project No.: 40141908

**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.

**Pace Analytical Services, LLC**
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1642 TD P3 CR
Pace Project No.: 40141908

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **40141908001** | **CR-1** | EPA 8260 | 241185 | | |
| **40141908002** | **CR-2** | EPA 8260 | 241185 | | |
| **40141908003** | **CR-3** | EPA 8260 | 241643 | | |
| **40141908004** | **CR-4** | EPA 8260 | 241185 | | |
| **40141908005** | **CR-5** | EPA 8260 | 241185 | | |
| **40141908006** | **TB** | EPA 8260 | 241185 | | |

Pace Analytical™
www.pacelabs.com

# CHAIN-OF-CUSTODY / Analytical Request Document

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

NNM.

40141908

Page: 1 of 1

| Section A **Required** Client Information: | Section B **Required** Project Information: | Section C Invoice Information: |
|---|---|---|
| Company: Environmental Audits, Inc. | Report To: E Raymond | Attention: J. R. Ruetz |
| Address: 1409 Hillcrest Circle | Copy To: J.R. Ruetz | Company Name: Environmental Audits, Inc. |
| Racine, WI 53406 | | Address: 11327 W Lincoln Ave, West Allis, WI 53227 |
| Email To: eeriii@wi.rr.com | Purchase Order No.: Verbal per Ed | Pace Quote Reference: |
| Phone:262 634 0641 Fax: | Project Name: TD P3 CR | Pace Project Manager: |
| **Requested Due Date/TAT:** | Project Number: 1642 | Pace Profile #: |

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER_____

SITE LOCATION ☐ GA ☐ L ☐ N ☐ I ☐ ; ☐ OH ☐ SC ☑ VI ☐ THER____

**Section D** **Required** Client Information

**SAMPLE ID**

One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| DRINKING WATER | DW |
| WATER | WT |
| WASTE WATER | WW |
| PRODUCT | P |
| SOIL/SOLID | SL |
| OIL | OL WP |
| WIPE | AR |
| AIR | OT |
| OTHER | TS |
| TISSUE | |

| ITEM # | Section D SAMPLE ID | MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | COLLECTED COMPOSITE START DATE | COLLECTED COMPOSITE START TIME | COLLECTED COMPOSITE END/GRAB DATE | COLLECTED COMPOSITE END/GRAB TIME | SAMPLE TEMP AT COLLECTION | #OF CONTAINERS | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other | Analysis: VOC | Residual Chlorine (Y/N) | Pace Project No. / Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CR-1 3-40mlVB | WW | G | 11/10/2016 | 1:15 PM | | | | 3 | | | | 3 | | | | | X | | 001 |
| 2 | CR-2 | WW | G | 11/10/2016 | 1:00 PM | | | | 3 | | | | 3 | | | | | X | | 002 |
| 3 | CR-3 | WW | G | 11/10/2016 | 1:30 PM | | | | 3 | | | | 3 | | | | | X | | 003 |
| 4 | CR-4 | WW | G | 11/10/2016 | 12:45 PM | | | | 3 | | | | 3 | | | | | X | | 004 |
| 5 | CR-5 | WW | G | 11/10/2016 | 12:30 PM | | | | 3 | | | | 3 | | | | | X | | 005 |
| 6 | TB 2-40mlVB | | | | | | | | | | | | | | | | | | | 006 |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |

Additional Comments: Flo

TB added to COC by Lab 11/11/16

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|
| | | | Melissa Vimmerstedt Pace | 11/11/16 | 1205 | |
| Melissa Vimmerstedt Pace | 11/11/16 | 1640 | Pace | 11/11/16 | 1640 | RQ |

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: J.R. Ruetz John Ruetz

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 11/10/2016

| Temp in °C | Received on Ice Y/N | Custody Sealed Cooler Y/N | Samples Intact Y/N |
|---|---|---|---|
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |

# Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

**Client Name:** Env Audits

Project #: **WO# : 40141908**

40141908

**Courier:** ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: _____

**Tracking #:** _____

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Custody Seal on Samples Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

**Thermometer Used** NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

**Cooler Temperature** Uncorr: /Corr: RO1 **Biological Tissue is Frozen:** ☐ yes ☐ no

**Temp Blank Present:** ☐ yes ☑ no

Person examining contents:
Date: 11/11/16
Initials: DMB

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°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 & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| - VOA Samples frozen upon receipt | ☐Yes ☐No | Date/Time: |
| **Short Hold Time Analysis (<72hr):** | ☐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 | |
| -Pace IR Containers Used: | ☐Yes ☐No ☑N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: WW | | |
| All containers needing preservation have been checked. (Non-Compliance noted in 13.) | ☐Yes ☐No ☑N/A | 13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct |
| All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 <2; NaOH+ZnAct ≥9, NaOH ≥12) | ☐Yes ☐No ☑N/A | |
| exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, OTHER: | ☑Yes ☐No | Initial when completed / Lab Std #ID of preservative / Date/ Time: |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 14. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 15. TB added to COC by lab DMB 11/11/16 |
| Trip Blank Custody Seals Present | ☑Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased): 369 | | |

**Client Notification/ Resolution:** If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**Project Manager Review:** AMW for DM **Date:** 11/11/16

F-GB-C-031-Rev.03 (9April2015) SCUR Form

**State of Wisconsin**
**Department of Natural Resources**
**Remediation and Redevelopment Program**

**Mann-Kendall Statistical Test**
**Form 4400-215 (2/2001)**

**Notice:** This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

**Instructions:** Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

| Site Name = Twin Disc Plant 3 | | | BRRTS No. = 02-52-378657 | | Well Number = CR-1 | |
|---|---|---|---|---|---|---|
| Compound -> | DRO | Total VOC | | | | |
| Event Number | Sampling Date (most recent last) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) |
| 1 | 28-Jan-15 | 3.10 | 0.44 | | | | |
| 2 | 13-May-15 | 1.00 | 0.79 | | | | |
| 3 | 27-Jul-15 | 0.79 | 0.77 | | | | |
| 4 | 7-Oct-15 | 0.25 | 1.30 | | | | |
| 5 | 24-Feb-16 | 1.40 | | | | | |
| 6 | 16-May-16 | 0.63 | 0.85 | | | | |
| 7 | 2-Aug-16 | | 1.18 | | | | |
| 8 | 10-Nov-16 | | 1.40 | | | | |
| 9 | 22-Feb-17 | | | | | | |
| 10 | 12-Apr-17 | | 0.91 | | | | |
| Mann Kendall Statistic (S) = | | -7.0 | 16.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Number of Rounds (n) = | | 6 | 8 | 0 | 0 | 0 | 0 |
| Average = | | 1.20 | 0.96 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Standard Deviation = | | 1.008 | 0.318 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Coefficient of Variation(CV)= | | 0.844 | 0.333 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Error Check, Blank if No Errors Detected | | | | n<4 | n<4 | n<4 | n<4 |
| Trend ≥ 80% Confidence Level | | DECREASING | INCREASING | n<4 | n<4 | n<4 | n<4 |
| Trend ≥ 90% Confidence Level | | No Trend | INCREASING | n<4 | n<4 | n<4 | n<4 |
| Stability Test, If No Trend Exists at 80% Confidence Level | | NA | NA | n<4<br>n<4 | n<4<br>n<4 | n<4<br>n<4 | n<4<br>n<4 |

| Data Entry By = EER | Date = 20-Apr-17 | Checked By = EER |
|---|---|---|

**State of Wisconsin**
**Department of Natural Resources**
**Remediation and Redevelopment Program**

**Mann-Kendall Statistical Test**
**Form 4400-215 (2/2001)**

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| Site Name = | Twin Disc Plant 3 | BRRTS No. = | 02-52-378657 | Well Number = | CR-2 |
|---|---|---|---|---|---|

| | Compound -> | DRO | Total VOC | | | | |
|---|---|---|---|---|---|---|---|
| Event Number | Sampling Date (most recent last) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) |
| 1 | 28-Jan-15 | 2.30 | 0.36 | | | | |
| 2 | 13-May-15 | 0.29 | 0.62 | | | | |
| 3 | 27-Jul-15 | 1.60 | 0.25 | | | | |
| 4 | 7-Oct-15 | 1.00 | 0.25 | | | | |
| 5 | 24-Feb-16 | 0.24 | 0.70 | | | | |
| 6 | 16-May-16 | 0.32 | 1.00 | | | | |
| 7 | 2-Aug-16 | | 1.00 | | | | |
| 8 | 10-Nov-16 | | 2.10 | | | | |
| 9 | 22-Feb-17 | | 2.10 | | | | |
| 10 | 12-Apr-17 | | 2.00 | | | | |
| | Mann Kendall Statistic (S) = | -7.0 | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Number of Rounds (n) = | 6 | 10 | 0 | 0 | 0 | 0 |
| | Average = | 0.96 | 1.04 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| | Standard Deviation = | 0.847 | 0.758 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| | Coefficient of Variation(CV)= | 0.883 | 0.730 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| Error Check, Blank if No Errors Detected | | | | n<4 | n<4 | n<4 | n<4 |
| Trend ≥ 80% Confidence Level | | DECREASING | INCREASING | n<4 | n<4 | n<4 | n<4 |
| Trend ≥ 90% Confidence Level | | No Trend | INCREASING | n<4 | n<4 | n<4 | n<4 |
| Stability Test, If No Trend Exists at 80% Confidence Level | | NA | NA | n<4<br>n<4 | n<4<br>n<4 | n<4<br>n<4 | n<4<br>n<4 |

| Data Entry By = | EER | Date = | 20-Apr-17 | Checked By = | EER |
|---|---|---|---|---|---|

**State of Wisconsin**
**Department of Natural Resources**
**Remediation and Redevelopment Program**

**Mann-Kendall Statistical Test**
**Form 4400-215 (2/2001)**

**Notice:** This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

**Instructions:** Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

| Site Name = Twin Disc Plant 3 | BRRTS No. = 02-52-378657 | Well Number = CR-3 |
|---|---|---|

| | Compound -> | DRO | 1,1-DCA | 1,1-DCE | 1,1,1-TCA | VC | Total VOC |
|---|---|---|---|---|---|---|---|
| Event Number | Sampling Date (most recent last) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) | Concentration (leave blank if no data) |
| 1 | 28-Jan-15 | 74.90 | 86,500.00 | 7,130.00 | 59,000.00 | 1,420.00 | 163,814.00 |
| 2 | 13-May-15 | 201.00 | 107,000.00 | 8,100.00 | 67,600.00 | 1,890.00 | 194,846.00 |
| 3 | 27-Jul-15 | 59.10 | 97,900.00 | 6,070.00 | 48,600.00 | 1,970.00 | 166,380.00 |
| 4 | 7-Oct-15 | 15.30 | 6,590.00 | 610.00 | 5,980.00 | 184.00 | 14,483.00 |
| 5 | 24-Feb-16 | 85.30 | 80,000.00 | 4,070.00 | 34,200.00 | 3,820.00 | 137,590.00 |
| 6 | 16-May-16 | 61.90 | 119,000.00 | 7,210.00 | 54,300.00 | 4,570.00 | 206,280.00 |
| 7 | 2-Aug-16 | | 101,000.00 | 7,880.00 | 33,500.00 | 3,560.00 | 162,160.00 |
| 8 | 10-Nov-16 | | 84,600.00 | 4,030.00 | 35,100.00 | 3,460.00 | 148,646.00 |
| 9 | 22-Feb-17 | | 98,900.00 | 4,150.00 | 31,300.00 | 3,770.00 | 166,620.00 |
| 10 | 12-Apr-17 | | 115,000.00 | 6,520.00 | 38,400.00 | 5,780.00 | 202,400.00 |
| | Mann Kendall Statistic (S) = | -3.0 | 9.0 | -5.0 | -15.0 | 25.0 | 7.0 |
| | Number of Rounds (n) = | 6 | 10 | 10 | 10 | 10 | 10 |
| | Average = | 82.92 | 89649.00 | 5577.00 | 40798.00 | 3042.40 | 156321.90 |
| | Standard Deviation = | 62.601 | 31824.215 | 2339.321 | 17417.591 | 1656.136 | 54699.805 |
| | Coefficient of Variation(CV)= | 0.755 | 0.355 | 0.419 | 0.427 | 0.544 | 0.350 |

| Error Check, Blank if No Errors Detected | | | | | | | |
|---|---|---|---|---|---|---|---|
| Trend ≥ 80% Confidence Level | No Trend | No Trend | No Trend | **DECREASING** | **INCREASING** | No Trend |
| Trend ≥ 90% Confidence Level | No Trend | No Trend | No Trend | No Trend | **INCREASING** | No Trend |
| Stability Test, If No Trend Exists at 80% Confidence Level | **CV <= 1 STABLE** | **CV <= 1 STABLE** | **CV <= 1 STABLE** | NA | NA | **CV <= 1 STABLE** |

| Data Entry By = EER | Date = 20-Apr-17 | Checked By = EER |
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