

708 Heartland Trail
Suite 3000
Madison, WI 53717

608-826-3600 PHONE
608-826-3941 FAX

www.TRCsolutions.com

December 5, 2014

Ms. Kathie VanPrice
Wisconsin Department of Transportation
944 Vanderperren Way
Green Bay, WI 53404

Ms. Elizabeth Victor
Wisconsin Department of Natural Resources
625 E. County Road Y, Suite 700
Oshkosh, WI 54901

Subject: Phase 3 Investigation
STH 116 (2nd Street to 2nd Ave.), Proposed Bridge Construction, Winneconne
WisDOT Project ID #6190-17-00

Dear Ms. VanPrice and Ms. Victor:

Enclosed find the Phase 3 Investigation report for the proposed STH 116 Bridge Construction Site in Winneconne, Wisconsin. Properties included in this investigation are:

- Site #5 - Creative Tile and Marble (29 W. Main Street)
- Site #8 - The Other Place and Grill (19 and 21 W. Main Street)
- Site #9 - Radtke Contractors, Inc. (15 and 21 E. Main Street)
- Site #11 - A1 Auto Sales (105 E. Main Street)
- Site #12 - Hometown Family Hair Care (117-119 E. Main Street)

Groundwater Contamination

Trichloroethene (TCE) contaminated groundwater above the NR 140 Enforcement Standard (ES) was identified at Site 9 (Radtke Contractors), Site 11, (A1 Auto Sales), and at Site 12, (Hometown Family Hair Care). Vinyl chloride contaminated groundwater above the NR 140 ES was identified at Site 9. Benzene and cis-1, 2-dichloroethene contaminated groundwater above the NR 140 ES was identified at Site 11. Dissolved arsenic and lead were also identified at levels above the NR 140 ES at Site 9. The highest contaminant concentrations identified in the groundwater were for TCE at Site 12, and to a lesser degree at Sites 11 and 9, indicating that the source area(s) is likely located at Site 12. Groundwater flow direction is generally to the west towards the Wolf River.

Ms. Kathie VanPrice
Wisconsin Department of Transportation
Ms. Elizabeth Victor
Wisconsin Department of Natural Resources
December 5, 2014
Page 2

Soil Contamination

TCE contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 12. TCE contaminated soil exceeding the groundwater pathway exists at Sites 9, 11, and 12. PAH contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 5 (Creative Tile and Marble) and Site 8 (The Other Place Bar and Grill). Arsenic was identified at concentrations exceeding NR 720 RCLs for direct contact (industrial) at all five sites. However, the arsenic concentrations are all below the background threshold values. Mercury contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 8. Lead and mercury exceeding the groundwater pathway was identified at Sites 5 and 8.

It is likely that the TCE contamination has originated from Site 12, and has migrated offsite to Sites 9 and 11, and likely to the Main Street ROW, and possibly to properties north of Main Street. Additional investigations and remediation are likely required at Sites 11 and 12.

TRC recommends that the WisDOT consider environmental liabilities associated with these properties and should consider acquiring them as easements, leaving future investigation and or remediation to the responsible parties.

Once preliminary construction plans with proposed excavation limits are available, additional investigations to further determine the limits of contaminated soil and groundwater may be necessary because much of the contamination is not easily detected via field screening.

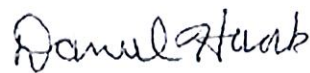
Feel free to contact me with any questions at 608-826-3659, or Dan Haak at 608-826-3628.

Sincerely,

TRC Environmental Corporation



Dennis Siewert
Senior Designer



Daniel Haak, P.E.
Project Manager

cc: Shar TeBeest – WisDOT (hard copy and pdf on CD)
Jim Morse – TRC



Phase 3 Investigation

Proposed STH 116 Bridge Construction
2nd Street to 2nd Avenue
Winneconne, Wisconsin

WisDOT Project #6190-17-00

December 2014



Phase 3 Investigation

Proposed STH 116 Bridge Construction
2nd Street to 2nd Avenue
Winneconne, Wisconsin

WisDOT Project #6190-17-00

December 2014

Dennis Siewert
Senior Designer

Daniel Haak, P.E.
Project Manager

James E. Morse
Senior Client Service Manager

Table of Contents

Commonly Used Abbreviations and Acronyms	iii
Executive Summary	iv
1. Background	1
1.1 Proposed Roadway Construction	1
1.2 Previous Site Investigations.....	1
2. Phase 3 Investigation.....	3
2.1 Investigation	3
2.2 Soil Screening and Sampling	3
2.3 Soil Analytical Results	4
2.4 Groundwater Sampling.....	4
2.5 Groundwater Analytical Results.....	4
3. Conclusions and Recommendations.....	6
3.1 Site Summaries	6
3.2 Real Estate Acquisitions	7
3.3 Contaminated Soil Management	7
3.4 Contaminated Groundwater to be Managed	8
3.5 Request for WDNR Reviews	8

List of Tables

Table 1	Summary of Soil Analytical Results
Table 2	Summary of Groundwater Analytical Results

List of Figures

Figure 1	Site Location Map
Figure 2	Site Map – East
Figure 3	Site Map – West
Figure 4	Groundwater Flow and Contamination Concentration Map (September 2014)

List of Appendices

Appendix A	Background Information
Appendix B	Site Photographs
Appendix C	Soil Boring Logs/Well Construction/Development/WDNR Borehole Filling and Sealing Forms
Appendix D	Waste Inventory Records
Appendix E	Analytical Results
Appendix F	Special Provisions

Commonly Used Abbreviations and Acronyms

AST	aboveground storage tank
bgs	below ground surface
BRRTS	Bureau for Remediation and Redevelopment Tracking System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CTH	County Trunk Highway
CY	cubic yards
DATCP	Department of Agriculture, Trade and Consumer Protection
DRO	diesel range organics
FDM	Facilities Development Manual
EMP	Excavation Management Plan
ERP	Environmental Repair Program
ES	Enforcement Standards
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
GIS Registry	WDNR Geographic Information System (GIS) Registry of Closed Remediation Sites
GRO	gasoline range organics
HAZWOPER	Code of Federal Registry Chapter 29 (29 CFR) Part 1910.120 Hazardous Waste Operations and Emergency Response
HMA	Hazardous Materials Assessment
IH	Interstate Highway
LQG	large quantity generator
LUST	leaking underground storage tank
NPL	National Priorities List
NR ###	Wisconsin Administrative Code (WAC) Natural Resources (NR) Chapter ###
PAHs	polynuclear aromatic hydrocarbons
PAL	Preventive Action Limits
PCBs	polychlorinated biphenyls
PCE	perchloroethylene/tetrachloroethylene
PID	photoionization detector
PVOCs	petroleum volatile organic compounds
RCLs	Residual Contaminant Levels in NR 720
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
R/W or ROW	right-of-way
sf	square feet
STH	State Trunk Highway
TCE	trichloroethylene
TRIS	Toxic Chemical Release Inventory System
USGS	United States Geological Survey
USH	United States Highway
UST	underground storage tank
VOCs	volatile organic compounds
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
WGNHS	Wisconsin Geological and Natural History Survey
WI ERP	Wisconsin Environmental Repair Program database

Executive Summary

The WisDOT is planning to construct a new fixed bridge with a 23-foot clearance located immediately south, adjacent to the existing bridge over the Wolf River (WisDOT project ID 6190-17-00) in Winneconne, Wisconsin. As part of the new bridge construction, proposed improvements of the 0.33 mile segment of STH 116 (Main Street) from S. 2nd Street to S. 2nd Avenue include new water and sewer lines, lighting and traffic signal poles, strip ROW acquisitions, temporary lease easements (TLE), as well as properties that are currently being considered for building relocation. Construction is planned for 2017.

The WisDOT is planning to acquire several properties along the east and west side of the Wolf River as part of the proposed STH 116 bridge construction. The results of the Phase 1 and Phase 2 investigations identified five of these properties that could pose a hazardous material concern to the proposed bridge approach construction activities within the limits of the proposed STH 116 project corridor.

During the construction of the new STH 116 bridge and approaches in Winneconne, it is estimated that maximum excavation depths will be between 5 and 15 feet bgs. Groundwater is expected to be encountered at depths ranging from 4 to 8 feet deep.

Prior to property acquisition TRC Environmental Corporation (TRC) was retained by the WisDOT to complete a Phase 3 Investigation to identify the extent of environmental impacts to the soil and groundwater along the construction corridor, and to assist in determining the environmental liability of the proposed parcels for acquisition purposes.

TRC conducted the Phase 3 Investigation on September 17th and 18th, 2014, by completing seven soil borings with temporary wells, and installing seven NR 141 monitoring wells within areas of proposed acquisition.

The investigation found TCE contaminated groundwater above the NR 140 ES at Site 9 (Radtko Contractors), Site 11 (A1 Auto Sales), and at Site 12 (Hometown Family Hair Care). Vinyl chloride contaminated groundwater above the NR 140 ES was identified at Site 9. Benzene and cis-1, 2-dichloroethene contaminated groundwater above the NR 140 ES was identified at Site 11. Dissolved arsenic and lead were also identified at levels above the NR 140 ES at Site 9. The highest contaminant concentrations identified in the groundwater were for TCE at Site 12, and to a lesser degree at Sites 11 and 9, indicating that the source(s) area is likely located at Site 12. Groundwater flow direction is generally to the west towards the Wolf River.

TCE contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 12. TCE contaminated soil exceeding the groundwater pathway exists at Sites 9, 11, and 12. PAH-contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 5 (Creative Tile and Marble) and Site 8 (The Other Place Bar and Grill). Arsenic was identified at concentrations exceeding NR 720 RCLs for direct contact (industrial) at all five sites. However, the arsenic concentrations are all below the background threshold values. Mercury contaminated soil above NR 720 RCLs for direct contact (non-industrial or industrial) was identified at Site 8. Lead and mercury exceeding the groundwater pathway was identified at Sites 5 and 8.

It is likely that TCE contamination is from Site 12, and has migrated offsite to Sites 9 and 11, likely to the Main Street ROW, and possibly to properties north of Main Street. Little or no breakdown products were found in this investigation, indicating that natural attenuation is not likely an effective means of remediation. Additional investigation and remediation will likely be required at these sites.

TRC recommends that the WisDOT consider environmental liabilities associated with these properties, and acquiring them as easements, leaving future investigation and/or remediation to the Responsible Parties. During the STH 116 Bridge and approach construction, TRC recommends that soil excavated at these sites be field-screened by an environmental consultant. Soil with significant impacts will need to be treated and disposed of at a WDNR-licensed bioremediation facility. Soil with low-level impacts, or soils near areas that has been determined based on previous investigations to be free of contamination, may be reused as backfill within the limits of construction of the project.

Once preliminary construction plans with proposed excavation limits are available, additional investigations to further determine the limits of contaminated soil and groundwater may be necessary because much of the contamination is not easily detected via field screening.

Section 1

Background

1.1 Proposed Roadway Construction

The WisDOT is planning to construct a new fixed bridge with a 23-foot clearance located immediately south adjacent to the existing bridge over the Wolf River (WisDOT project ID 6190-17-00) in Winneconne, Winnebago County, Wisconsin. As part of the new bridge construction, proposed improvements of the 0.33 mile segment of STH 116 (Main Street) from S. 2nd Street to S. 2nd Avenue include new water and sewer lines, lighting and traffic signal poles, strip R/W acquisitions, TLE, as well as properties that are currently being considered for acquisition. A Site Location Map is presented in Figure 1. Construction is planned for 2017. Groundwater is expected to be encountered at depths ranging from 4 to 8 feet deep. Construction plans with proposed excavations are not currently available for the project.

1.2 Previous Site Investigations

A Phase 1 HMA report completed by Himalayan Consultants, LLC (Himalayan) in August, 2012, identified historical land use activities for the aforementioned properties that could pose a potential hazardous materials concern during construction of the proposed new STH 116 Bridge and approach construction. Based on the findings of the Phase 1 HMA, five sites were identified and recommended for a Phase 2 Hazardous Materials Investigation (HMI) in order to identify the potential presence and nature of contamination within the proposed ROW and for property acquisitions.

In January 2014, Himalayan completed a Phase 2 HMI Report for the WisDOT. The findings of the Phase 2 HMI concluded that evidence of hazardous substance release was identified at the following four sites:

- Site #5 - Creative Tile and Marble (29 W. Main Street)
- Site #8 - The Other Place Bar and Grill (19 and 21 W. Main Street)
- Site #11 - A1 Auto Sales / Steve's Marine (105 E. Main Street [Open ERP site, WDNR BRRTS # 02-71-562271])
- Site #12 - Hometown Family Hair Care (115 E. Main Street [Open ERP site, WDNR BRRTS #02-71-562227])

The WisDOT requested additional investigations be performed on these sites based on the findings of the Phase 1 and Phase 2 investigations. TRC reviewed Himalayans previous

investigations and evaluated conditions in the field to determine the locations of additional borings and NR 141 groundwater monitoring wells to be installed at these sites. Based on information from previous investigations, and information based on historical land use, the WisDOT and TRC recommended that an investigation be performed at an additional site. This site is:

- Site #9 - Radtke Contractors, Inc. (15 and 21 E. Main Street). The 21 E. Main Street site is listed as a closed Lust site (BRRTS #03-71-001089); was closed in 1994.

Himalayan's Phase 2 report contains soil and groundwater data from samples collected from Sites 5, 8, 11, and 12. The locations of those borings are provided on Figures 2 and 3. Associated background soil and groundwater data is presented in Appendix A.

Section 2

Phase 3 Investigation

2.1 Investigation

Representatives from TRC and TRC's Geoprobe® subcontractor, On-Site Environmental Services (On-Site), were in Winneconne on September 17 and 18, 2014, to complete seven soil borings with temporary wells and seven NR 141 groundwater monitoring wells. Site photographs are included in Appendix B. Soil borings and monitoring well locations are shown on Figures 2 and 3.

The boring locations were selected based on TRC's review of previous environmental investigations and field observations. Borings GP-9-1, GP-9-2, and GP-9-3 were completed to a depth of 10-feet bgs. Borings GP-5-1, GP-8-2, GP-8-3, and GP-9-4 were completed to a depth of 15-feet bgs. Monitoring wells TRC-8-1, TRC-11-1, TRC-11-2, TRC-11-3, TRC-12-1, and TRC-12-2 were completed to a depth of 15-feet bgs. Monitoring well TRC-12-3 was completed to a depth of 25-feet bgs. All NR 141 groundwater monitoring wells installed during this investigation were later surveyed by Wisconsin Land Surveying, Inc. for groundwater elevation data, and was based on NGVD 1929 Datum. Temporary wells were installed in each of the borings for groundwater collection to better define limits of contamination. Groundwater was not available for sample collection and analysis from boring GP-9-4.

On-Site abandoned each boring not converted into a NR 141 groundwater monitoring well immediately following sample collection. Soil boring logs, borehole abandonment and sealing forms, as well as monitoring well construction forms are in Appendix C. Soil cuttings generated during this investigation were sampled, submitted for laboratory analysis, and containerized for disposal. Waste inventory disposal records are included in Appendix D.

2.2 Soil Screening and Sampling

Soil samples were collected continuously at each boring location for field description according to the Unified Soil Classification System (USCS) and field screened for staining, odors, and for VOCs using a PID. The PID readings are summarized in Table 1, and are listed on the boring logs included in Appendix C. Soil in the areas of the investigation varies, but is predominately clay, with trace organics, wood chips and gravel.

Odors or elevated PID readings were detected in soil collected from borings GP-8-1(5-10 feet bgs), GP-8-2 (7.5-10 feet bgs), GP-9-1 (2.5-5 feet bgs), GP-11-2 (10-15 feet bgs), and GP-12-3 (10-22.5 feet bgs).

2.3 Soil Analytical Results

Soil samples were submitted to Pace Analytical for laboratory analysis for VOCs, RCRA-8 Metals, DRO, GRO, and PAHs depending upon the results from the Phase 2 investigation or historical land use information. The laboratory report is included in Appendix E, and the results are summarized and compared to the NR 720 RCLs in Table 1.

TCE exceeded the NR 720 RCL for industrial direct contact at Site 12-GP-12-3 from 10-12.5 feet bgs (8,360 ug/kg) and 17.5-20 feet bgs (61,300 ug/kg). TCE exceeded the groundwater pathway RCL at Sites 9, 11, and 12. GP-9-3 from 2.5-5 feet bgs (86.5 ug/kg) and 7.5-10 feet bgs (579 ug/kg), GP-11-2 from 12.5-15 feet bgs (430 ug/kg), and GP-12-1 from 12.5-15 feet bgs (191 ug/kg). Arsenic exceeded the NR 720 RCL for either industrial or non-industrial direct contact at Sites 5, 8, 11, and 12. However, the arsenic concentrations are all below the background threshold values. Mercury exceeded the NR 720 RCL for industrial direct contact at GP-8-1 (14.7 mg/kg). Benzo(a)anthracene exceeded the NR 720 RCL for non-industrial direct contact at GP-8-1 (156 ug/kg) and GP-8-3 (173 & 265 ug/kg). Benzo(a)pyrene exceeded the NR 720 RCL for direct contact at GP-5-1 (93.7 & 15.5 ug/kg), GP-8-1 (174 ug/kg), GP-8-2 (169 ug/kg), and GP-8-3 (157 & 241 ug/kg). Dibenzo(a,h)anthracene exceeded the NR 720 RCL for non-industrial direct contact at GP-8-1 (36.1 ug/kg), GP-8-2 (34.4 ug/kg), and GP-8-3 (23 & 35.8 ug/kg).

2.4 Groundwater Sampling

Seven 2-inch groundwater monitoring wells were constructed at borings GP-8-1, GP-11-1, GP-11-2, GP-11-3, GP-12-1, GP-12-2, and GP-12-3. Seven 1-inch PVC temporary wells were constructed at borings GP-5-1, GP-8-2, GP-8-3, GP-9-1, GP-9-2, GP-9-3, and GP-9-4. In addition, a groundwater sample was collected from soil boring GP-8-1 prior to the construction of the NR 141 groundwater monitoring well TRC-8-1 because the final location of the NR 141 well at this site was not yet determined. Groundwater was encountered at depths ranging from 2.6 to 4.6 feet bgs on the west side of the Wolf River (Sites 5 and 8), and at depths ranging from 2.8 and 7.9 feet bgs on the east side of the Wolf River (Sites 9, 11, and 12) during the Phase 3 Investigation. As mentioned earlier in this report, no groundwater was available for sample collection and analysis from GP-9-4. Figures 2 and 3 show the location of the soil borings from previous investigations and the Phase 3 investigation borings and monitoring wells.

2.5 Groundwater Analytical Results

Groundwater from each temporary or NR 141 well was sampled and submitted to Pace Analytical for laboratory analysis for VOCs and RCRA-8 Metals. The groundwater analytical results are summarized in Table 2. Results from the analysis showed TCE exceeded the NR 140 ES at TW-9-3, TRC-11-1, TRC-11-2, TRC-11-3, TRC-12-1, and TRC-12-3. Concentrations ranged from 53.5 ug/L to 19,600 ug/L. TRC-11-1 also had exceedences of the ES for benzene

(35.8 ug/L) and cis-1,2-dichloroethene (137 ug/L). The ES for vinyl chloride was exceeded at TW-9-1 (17.1 ug/L) and TW-9-3 (8.7 ug/L). The PAL was exceeded at TRC-11-1 for naphthalene (23.3 ug/L) and tetrachloroethene (4.0 ug/L). Lead exceeded the ES at TW-9-1 (198 ug/L).

Section 3

Conclusions and Recommendations

3.1 Site Summaries

Site #5 – Creative Tile and Marble (29 W. Main Street)

The results of the investigation identified that low level PAHs and metals are present at this site, likely associated with shallow/historic fill. Despite low-level PAHs detected in the soil, naphthalene (the most mobile of the PAHs) was not detected in the groundwater. Also, there were no NR 140 ES exceedances of metals in the groundwater. Given that no significant groundwater contaminant levels were identified, TRC recommends that no additional investigation or remediation be required.

Site #8 – The Other Place and Grill (19 and 21 W. Main Street)

Laboratory analytical results of a soil sample from boring GP-8-1 indicate that mercury and lead are present at levels above NR 720 RCLs (14.7 mg/kg and 167 mg/kg, respectively). The detected PAHs and metals are likely associated with historic fill. Despite low-level PAHs detected in the soil, naphthalene (the most mobile of the PAHs) was not detected in the groundwater. Since no ES exceedances were detected in the groundwater samples collected at this site, TRC recommends that no additional investigation or remediation be required.

Site #9 – Radtke Contractors, Inc. (15 and 21 E. Main Street)

This site is a closed LUST site (BRRTS #03-71-001089). The only VOCs encountered above NR 140 ES were vinyl chloride and TCE. TCE (also detected in the soil) has likely migrated down gradient from Site 12. The metals detected in groundwater are likely from shallow fill. TRC recommends that no additional investigation or remediation be required.

Site #11 – A1 Auto Sales (105 E. Main Street)

This is an open site (BRRTS #02-71-562271). Laboratory analytical results indicate that TCE contaminants in the groundwater at this site are above NR 140 ES (between 64.8 and 1,030 ug/L). TCE has likely migrated down gradient from Site 12. However, PVOCs were detected in both soil and groundwater (including benzene [35.8 ug/L] above the NR 140 ES) at this site. It appears a release separate from the TCE, likely from

Site 12, has occurred. TRC recommends additional investigation of the PVOCs be completed by the Responsible Party.

Site #12 – Hometown Family Hair Care (117-119 E. Main Street)

This is an open site (BRRTS #02-71-562227). Laboratory analytical results for boring GP-12-3 at two different depth intervals indicate significant TCE contamination in soil (10-12.5 feet bgs at 8,360 ug/kg), and (17.5 to 20 feet bgs at 61,300 ug/kg). Laboratory analytical results also indicate TCE contamination in groundwater at monitoring wells TRC-12-1 (127 ug/L), and TRC-12-3 (19,600 ug/L). This site is likely the source of groundwater TCE contamination at Sites 9 and 11. TRC recommends the Responsible Party complete additional investigation and remediation, which may include the installation of additional monitoring wells and conducting groundwater monitoring activities in order to further define limits of contamination in the groundwater table. Remedial actions may be required and could include in-situ treatment of the TCE contamination plume.

3.2 Real Estate Acquisitions

Real estate acquisition of portions or all of the investigated parcels is planned for the STH 116 Bridge and approach construction project. The WisDOT should consider environmental liabilities prior to acquisition and consider that the WDNR will likely require additional investigation and/or remediation at Sites 11 and 12.

3.3 Contaminated Soil Management

Waste characterization results indicate soil/fill excavated from the contaminated sites is non-hazardous. TRC recommends that soil excavated within the project corridor during the STH 116 bridge and approach construction be field-screened by an environmental consultant. Soil with significant impacts and/or with elevated Flame Ionization Detector (FID) readings (>10 ppm), odors, or staining are to be treated and disposed of at a WDNR-licensed landfill facility. Soil exhibiting low-level contamination based on field screening (<10 ppm) will be considered suitable for reuse as backfill. Excess low-level contaminated soil (if applicable) that cannot be reused as backfill in these areas, should also be treated and disposed of at a WDNR-licensed landfill facility.

Since construction plans with proposed excavation limits are not yet available, TRC cannot accurately estimate the amount of contaminated soil that will require offsite treatment and disposal during the STH 116 bridge and approach construction.

Once construction plans including excavations for utilities are available, TRC recommends additional investigation to further determine the limits of contamination in soil and groundwater because much of the contamination is not easily detected via field screening. Based on the recent laboratory analytical results and the previous Phase 2 investigation, materials excavated during construction should be considered non-hazardous.

3.4 Contaminated Groundwater to be Managed

Since groundwater contaminant levels within the project limits are above NR 140 ES standards, water generated from dewatering activities within certain areas may exceed the surface water discharge limits for VOC compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Preliminary discussions with the City of Winneconne indicate that some or all of the contaminated groundwater requiring dewatering may be discharged into the local sanitary sewer.

If contaminated water needs to be removed from an excavation, and is not accepted to discharge into the local sanitary sewer, it must be pumped into temporary holding tanks while the transport and disposal are coordinated. Contaminated water encountered but not requiring removal, may remain in-place.

3.5 Request for WDNR Reviews

TRC has prepared draft Special Provisions for the management of contaminated soil during construction (Appendix F). TRC recommends that the WDNR review this report and the attached Special Provisions as the EMP. If acceptable, the WDNR should provide record of their concurrence with the EMP.

Table 1
Summary of Soil Analytical Results
Phase 3, STH 116 (Wolf River Bridge)
Winneconne, WI
WISDOT ID #6190-17-00

ANALYTE			SAMPLE ID/ SAMPLE DEPTH (FT BGS)																												NR 720 RCLs FOR SOIL ⁽⁴⁾			
			Site 5		Site 8						Site 9						Site 11						Site 12											
			GP5-1	GP5-1	GP8-1	GP8-1	GP8-2	GP8-3	GP8-3	GP9-1	GP9-1	GP9-2	GP9-2	GP9-3	GP9-3	GP9-4	GP9-4	GP11-1	GP11-1	GP11-2	GP11-2	GP11-3	GP11-3	GP12-1	GP12-1	GP12-2	GP12-2	GP12-3	GP12-3					
			2.5-5	10-12.5	5-7.5	12.5-15	2.5-5	7.5-10	5-7.5	12.5-15	2.5-5	7.5-10	5-7.5	7.5-10	2.5-5	7.5-10	5-7.5	10-12.5	2.5-5	7.5-10	2.5-5	12.5-15	5-7.5	12.5-15	2.5-5	12.5-15	5-7.5	12.5-15	10-12.5	17.5-20				
DATE		9/17/2014	9/17/2014	9/14/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/14/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/17/2018	9/17/2018	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014	9/18/2014				
PID	PPM	1.3	0.1	126.7	0.5	1.2	10.8	0.8	1.1	28.1	0.8	0.7	0.3	1.0	0.8	0.9	1.1	1.1	1.7	2.6	10.7	4.3	6.1	1.8	6.2	1.6	2.7	64.2	689.2	GW PATH ⁽²⁾	NON-INDUSTRIAL ⁽³⁾ DIRECT CONTACT	INDUSTRIAL ⁽³⁾ DIRECT CONTACT	BACKGROUND SURFICIAL BTY ⁽⁵⁾	
DRO	mg/kg	---	---	448	1.6J	38.4	9.8	31.1	6.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.77	0.79J	0.80J	1.0J	0.83J	1.1J	-	-	-	-	
GRO	mg/kg	---	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	4.0J	20.5	-	-	-	-		
VOCs																																		
ETHYLBENZENE	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	474	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	1,570	7,470	37,000	-		
ISOPROPYLBENZENE (CUMENE)	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	162	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	-	268,000	268,000	-		
TRICHLOROETHYLENE	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	86.5	579	<25	49.7J	<25	<25	430	<25	522	<25	191	<25	<25	8360	61300	3.6	1,260	8,810	-		
NAPHTHALENE	µg/kg	<40	<40	<80	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	236J	<40	<40	<40	<40	<40	<40	<40	<40	<160	<801	659	5,150	26,000	-		
TOLUENE	µg/kg	<25	<25	85.7J	<25	35.6J	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	1,107	818,000	818,000	-		
1,2,4-TRIMETHYLBENZENE	µg/kg	<25	<25	<50	<25	39.9J	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	46.6J	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	1,382 ⁽⁶⁾	89,800	219,000	-		
1,3,5-TRIMETHYLBENZENE	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	730	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	1,382 ⁽⁶⁾	182,000	182,000	-		
METHYLENE CHLORIDE	µg/kg	35.1J	<25	54.2J	35.3J	<25	31.0J	25.2J	30.9J	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	27.4J	<25	<25	<25	<25	<25	<100	<500	2.6	60,700	1,070,000	-		
M&P-XYLENE	µg/kg	<50	<50	<100	<50	<50	<50	<50	<50	<50	<50	59.5J	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<200	<1000	3,940 ⁽⁷⁾	258,000 ⁽⁷⁾	258,000 ⁽⁷⁾	-		
O-XYLENE	µg/kg	<25	<25	<50	<25	33.0J	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	3,940 ⁽⁷⁾	258,000 ⁽⁷⁾	258,000 ⁽⁷⁾	-		
N-PROPYLBENZENE	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	772	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	-	264,000	264,000	-		
P-ISOPROPYLTOLUENE	µg/kg	<25	<25	572	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	52.1J	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	-	162,000	162,000	-		
SEC-BUTYLBENZENE	µg/kg	<25	<25	<50	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	123	<25	<25	<25	<25	<25	<25	<25	<25	<100	<500	-	145,000	145,000	-		
PAHs																																		
ACENAPHTHENE	µg/kg	<8.3	<8.3	<16.7	<8.3	<8.3	<8.3	9.8J	18.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	3,440,000	33,000,000	-	
ACENAPHTHYLENE	µg/kg	10.2J	<7.5	30.8J	<7.5	64.1	<7.5	14.9J	51.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	-	-	-
ANTHRACENE	µg/kg	30.1	<8.6	65.4	<8.6	148	<8.6	82.2	141	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	197,727	17,200,000	100,000,000	-
BENZO(A)ANTHRACENE	µg/kg	90.4	15.1J	156	<5.8	120	<5.8	173	265	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	148	2,110	-
BENZO(A)PYRENE	µg/kg	93.7	15.5J	174	<6.0	169	<6.0	157	241	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	470	15	211	-
BENZO(B)FLUORANTHENE	µg/kg	71.3	12.4J	136	<8.3	233	<8.3	112	183	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	479	148	1,280	-
BENZO(G,H,I)PERYLENE	µg/kg	50.8	10.4J	93.2	<6.3	84.5	<6.3	92.9	142	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	-	-	-
BENZO(K)FLUORANTHENE	µg/kg	79.3	16.6J	140	<9.2	136	<9.2	146	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	1,480	21,100	-
CHRYSENE	µg/kg	103	23.8	226	<7.7	192	<7.7	188	277	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	144.6	14,800	211,000	-
DIBENZ(A,H)ANTHRACENE	µg/kg	14.9J	<6.1	36.1	<6.1	34.4	<6.1	23	35.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	15	211	-
FLUORANTHENE	µg/kg	172	42.9	332	<8.3	165	9.5J	417	677	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88,877.8	2,290,000	22,000,000	-
FLUORENE	µg/kg	<8.3	<8.3	<16.7	<8.3	22.2	<8.3	17.6	66.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,802.7	2,290,000	22,000,000	-
INDENO(1,2,3-CD)PYRENE	µg/kg	43.4	8.0J	76.8	<6.3	77.7	<6.3	79.6	126	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	148	2,110	-
1-METHYLNAPHTHALENE	µg/kg	<8.3	<8.3	175	<8.3	139	<8.3	<8.3	<8.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	15,600	53,100	-
2-METHYLNAPHTHALENE	µg/kg	<8.3	<8.3	220	<8.3	174	<8.3	<8.3	<8.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	229,000	2,200,000	-
PHENANTHRENE	µg/kg	82.8	24.5	252	<8.3	201	8.4J	210	451	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-	-	-	-
PYRENE	µg/kg	161	35.5	301	<8.3	158	<8.3	365	567	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54,132	1,720,000	-	-
METALS																																		
ARSENIC	mg/kg	3.5	4.4	3.5	2.1	6.6	3	2.5	3.9	---	---	---	---	---	---	---	---	2.2	3.2	3.7	2.9	2.6	5.8	3	4.8	3.1	2.7	3.8	3.3	0.58	0.613	2.39	8.0	
BARIUM	mg/kg	58.2	67.8	94.9	21.8	79.5	65.2	43	71.2	---	---	---	---	---	---	---	---	37.2	55.2	100	56	38.1	55	50.6	63.5	53.2	52	54	44.9	164.80	15,300	100,000	364	
CADMIUM	mg/kg	0.26J	<0.063	1.1	<0.064	0.34J	<0.058	0.26J	<0.061	---	---	---	---	---	---	---	---	<0.057	<0.063	<0.057	<0.066	<0.065	<0.060	<0.066	<0.062	<0.063	<0.060	<0.062	<0.064	0.75	70	799	1.0	
CHROMIUM	mg/kg	9.9	18.3	12	8.7	8.8	20.2	8.7	19.1	---	---	---	---	---	---	---	---	14.4	18.6	28.8	18.1	16	16.9	18.9	16.2	14.6	17.6	14.3	12.2	360,000	100,000	100,000	44	
LEAD	mg/kg	67.8	7.4																															

Table 2
Summary of Groundwater Analytical Results
Phase 3, STH 116 (Wolf River Bridge)
Winneconne, WI
WISDOT ID #6190-17-00

ANALYTE ⁽¹⁾		WDNR NR 140 GROUNDWATER STANDARDS		WELL ID/DTB (FT BGS)														
				Site 5	Site 8					Site 9			Site 11			Site 12		
					TW5-1	TW8-1	TW8-2	TW8-3	TRC-8-1	TW9-1	TW9-2	TW9-3	TRC-11-1	TRC-11-2	TRC-11-3	TRC-12-1	TRC-12-2	TRC-12-3
					15'	15'	15'	15'	15'	10'	10'	10'	15'	15'	15'	15'	15'	25'
					ES	PAL	9/17/2014	9/17/2014	9/17/2014	9/17/2014	9/22/2014	9/17/2014	9/17/2014	9/14/2014	9/22/2014	9/22/2014	9/22/2014	9/22/2014
VOCs																		
BENZENE	µg/L	5	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	35.8	<5.0	<0.50	<0.50	<0.50	<50.0	
N-BUTYLBENZENE	µg/L	-	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	6.5	<5.0	<0.50	<0.50	<0.50	<50.0	
1,1-DICHLOROETHENE	ug/L	7	0.7	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	1.0 J	<4.1	<0.41	<0.41	<0.41	<41.0	
CIS-1,2-DICHLOROETHENE	ug/L	70	7	<0.26	<0.26	<0.26	<0.26	<0.26	0.33 J	<0.26	9.1	137	<2.6	<0.26	1.1	<0.26	27.0 J	
TRANS-1,2-DICHLOROETHENE	ug/L	100	20	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	0.32 J	1.3 J	<2.6	<0.26	2.5	<0.26	<25.7	
ETHYLBENZENE	ug/L	700	140	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	97.9	<5.0	<0.50	<0.50	<0.50	<50.0	
ISOPROPYLBENZENE (CUMENE)	µg/L	-	-	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	11.8	<1.4	<0.14	<0.14	<0.14	<14.3	
P-ISOPROPYLTOLUENE	ug/L	-	-	0.58 J	3.8	<0.50	<0.50	146	<0.50	<0.50	<0.50	1.5 J	<5.0	<0.50	<0.50	<0.50	<50.0	
METHYL-TERT-BUTYL ETHER	ug/L	60	12	<0.17	<0.17	0.27 J	<0.17	<0.17	<0.17	0.42 J	<0.17	<0.44	<1.7	<0.17	<0.17	<0.17	<17.4	
NAPHTHALENE	µg/L	100	10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	23.3	<25.0	<2.5	<2.5	<2.5	<250	
N-PROPYLBENZNE	ug/L	-	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	22.4	<5.0	<0.50	<0.50	<0.50	<50.0	
TETRACHLOROETHENE	ug/L	5	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<5.0	<0.50	<0.50	<0.50	<50.0	
TOLUENE	µg/L	800	160	<0.50	0.94 J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	13.7	<5.0	<0.50	<0.50	<0.50	<50.0	
TRICHLOROETHENE	ug/L	5	0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	53.5	130	1,030	64.8	127	<0.33	19,600	
1,2,4-TRIMETHYLBENZENE	ug/L	480 ⁽³⁾	96 ⁽³⁾	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	<5.0	<0.50	<0.50	<0.50	<50.0	
1,3,5-TRIMETHYLBENZNE	ug/L	480 ⁽³⁾	96 ⁽³⁾	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	23.0	<5.0	<0.50	<0.50	<0.50	<50.0	
VINYL CHLORIDE	ug/L	0.2	0.02	<0.18	<0.18	<0.18	<0.18	<0.18	17.1	<0.18	8.7	<0.44	<1.8	<0.18	<0.18	<0.18	<17.6	
M&P-XYLENE	ug/L	2000 ⁽⁴⁾	400 ⁽⁴⁾	<1.0	<1.0	<1.0	1.3 J	<1.0	<1.0	<1.0	<1.0	19.2	<10.0	<1.0	<1.0	<1.0	<100	
O-XYLENE	µg/L	2000 ⁽⁴⁾	400 ⁽⁴⁾	<0.50	<0.50	<0.50	0.69 J	<0.50	<0.50	<0.50	<0.50	<1.2	<5.0	<0.50	<0.50	<0.50	<50.0	
DISSOLVED METALS																		
ARSENIC, DISSOLVED	µg/L	10	1	<7.2	<7.2	<6.8	<7.2	<7.2	9.0 J	11.7 J	<7.2	8.3 J	<7.2	<7.2	<7.2	<7.2	<7.2	
BARIUM, DISSOLVED	µg/L	2000	400	32.6	574	122	176	228	287	266	118	108	52.1	116	82.2	123	41.1	
CADMIUM, DISSOLVED	µg/L	5	0.5	<0.60	<0.60	<1.0	<0.60	<0.60	1.8 J	<0.60	<0.60	<0.60	<0.60	<0.60	0.63 J	<0.60	<0.60	
CHROMIUM, DISSOLVED	µg/L	100	10	<2.1	<2.1	2.0J	<2.1	<2.1	39	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	
LEAD, DISSOLVED	µg/L	15	1.5	6.5J	<3.0	5.7J	<3.0	3.6 J	198	5.5 J	<3.0	<3.0	<3.0	<3.0	<3.0	3.4 J	3.1 J	
MERCURY, DISSOLVED	µg/L	2	0.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
SELENIUM, DISSOLVED	µg/L	50	10	<6.7	<6.7	<6.8	<6.7	<6.7	<6.8	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	
SILVER, DISSOLVED	u/L	50	10	<2.7	<2.7	<3.2	<2.7	<2.7	<3.2	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	

Created By: T.Krause 10/14/14
Checked By: D. Haak 10/15/2014

Notes:

ES = NR140 Enforcement Standard

PAL = NR140 Preventative Action Limit

BGS = Below ground surface

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

B = Analyte was detected in the associated method blank.

- =Suggested standard has not been established for this analyte.

ITALIC = indicates that the analyte exceeds the WDNR NR140 PAL

BOLD = indicates that the analyte exceeds the WDNR NR140 ES

Footnotes:

⁽¹⁾ Only analytes with hits are shown in the graph

⁽²⁾ Heavy oil free product seen while purging well prior to groundwater sample being taken

⁽³⁾ NR 140 Groundwater ES and PAL Standard is for combined 1,2,4- and 1,3,5- Trimethylbenzene

⁽⁴⁾ Groundwater ES and PAL is for combined M,O&P Xylenes

TRC - GIS



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



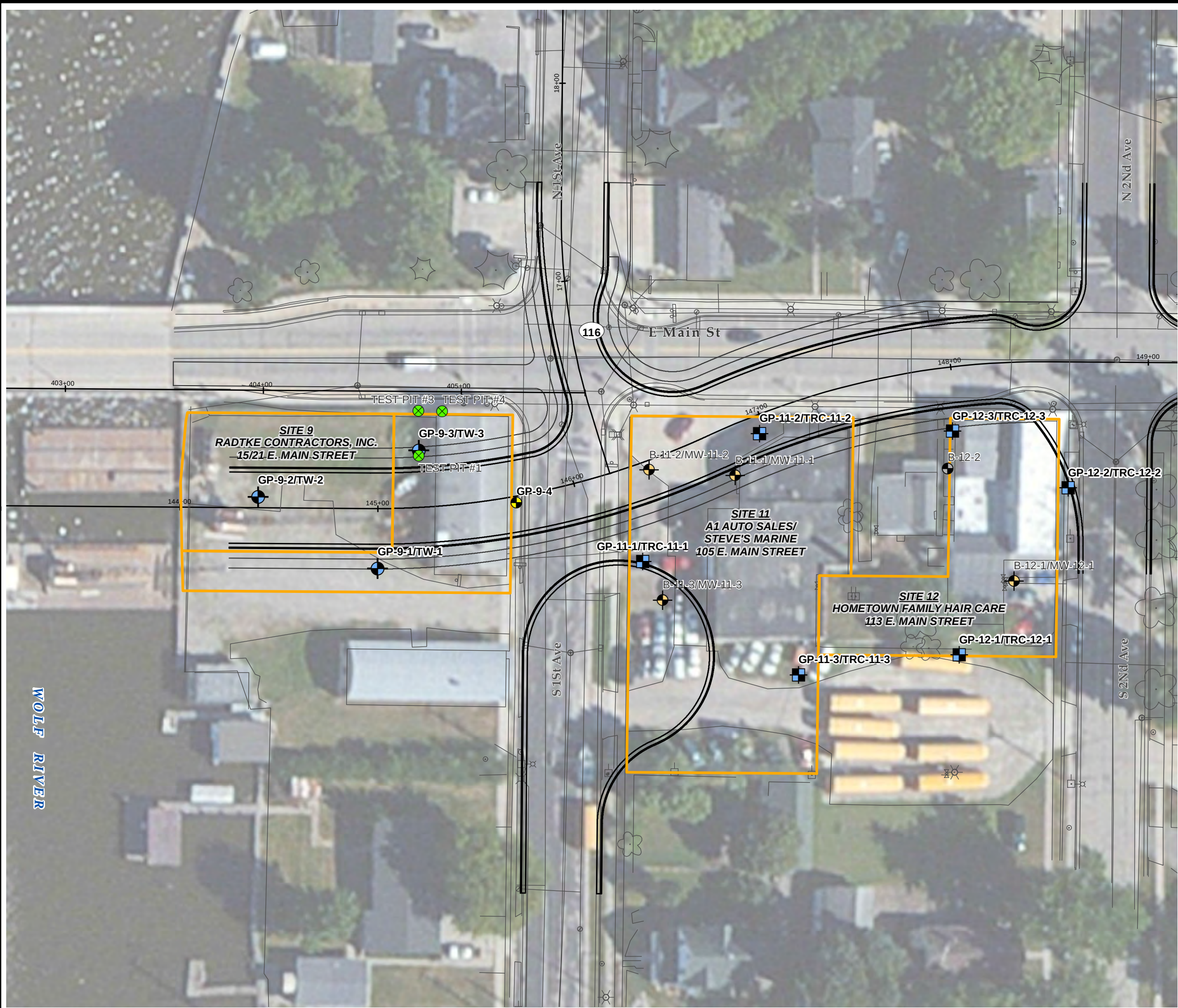
708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

WISDOT ID# 6190-17-00
STH 116
WINNECONNE, WISCONSIN

SITE LOCATION MAP

DRAWN BY:	RHODE B
APPROVED BY:	HAAK D
PROJECT NO:	223432
FILE NO.	223432-003slm.mxd
DATE:	NOVEMBER 2014

FIGURE 1

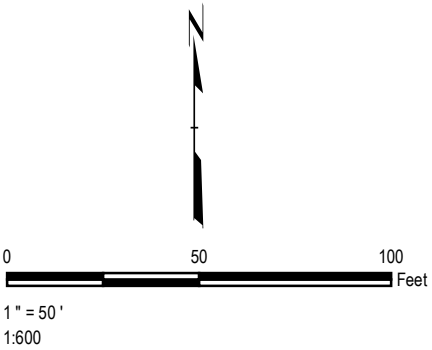


LEGEND

- TRC SOIL BORING / 2" NR 141 MONITORING WELL
- TRC SOIL BORING / TEMPORARY WELL
- TRC SOIL BORING
- HISTORIC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING
- PREVIOUS INVESTIGATION TEST PITS
- PROPERTY BOUNDARY

NOTES

- BASE MAP IMAGERY FROM ESRI/MICROSOFT, "WORLD IMAGERY", WEB BASEMAP SERVICE LAYER, 2011.
- CONSTRUCTION DESIGN WORK SUPPLIED BY WisDOT.
- PROPERTY BOUNDARIES SUPPLIED BY WINNEBAGO COUNTY GIS DEPARTMENT.
- HISTORIC BORING / WELL LOCATIONS AND PROPERTY BOUNDARIES DIGITIZED FROM HIMALAYAN CONSULTANTS, LLC PHASE 1 & 2 FIGURES, LOCATIONS ARE APPROXIMATE.



PROJECT:		WISDOT ID# 6190-17-00 STH 116 WINNECONNE, WISCONSIN	
SHEET TITLE:		SITE MAP- EAST	
DRAWN BY:	RHODE B	SCALE:	PROJ. NO. 223432
CHECKED BY:	SIEWERT D	1: 600	FILE NO. 223432-010.mxd
APPROVED BY:	HAAK D	DATE PRINTED:	FIGURE 2
DATE:	NOVEMBER 2014		



708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

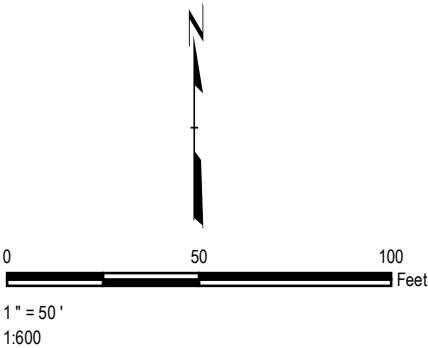


LEGEND

- TRC SOIL BORING / 2" NR 141 MONITORING WELL
- TRC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING
- PROPERTY BOUNDARY

NOTES

- BASE MAP IMAGERY FROM ESRI/MICROSOFT, "WORLD IMAGERY", WEB BASEMAP SERVICE LAYER, 2011.
- CONSTRUCTION DESIGN WORK SUPPLIED BY WisDOT.
- PROPERTY BOUNDARIES SUPPLIED BY WINNEBAGO COUNTY GIS DEPARTMENT.
- HISTORIC BORING / WELL LOCATIONS AND PROPERTY BOUNDARIES DIGITIZED FROM HIMALAYAN CONSULTANTS, LLC PHASE 1 & 2 FIGURES, LOCATIONS ARE APPROXIMATE.



PROJECT:		WISDOT ID# 6190-17-00 STH 116 WINNECONNE, WISCONSIN	
SHEET TITLE:		SITE MAP- WEST	
DRAWN BY:	RHODE B	SCALE:	PROJ. NO.
CHECKED BY:	SIEWERT D	1: 600	223432
APPROVED BY:	HAAK D	DATE PRINTED:	FILE NO.
DATE:	NOVEMBER 2014		223432-011.mxd
		FIGURE 3	



708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com



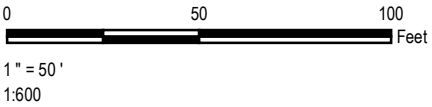
LEGEND

- TRC SOIL BORING / 2" NR 141 MONITORING WELL
- TRC SOIL BORING / TEMPORARY WELL
- TRC SOIL BORING
- HISTORIC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING
- PREVIOUS INVESTIGATION TEST PITS
- GROUNDWATER CONTAMINATION ISOCONCENTRATION CONTOUR (TCE PAL - 0.5 µg/L, DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION CONTOUR (2 FT INTERVAL, DASHED WHERE INFERRED)
- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION

SAMPLE ID
(GROUNDWATER ELEVATION, FT)
TCE CONCENTRATION [µg/L]

NOTES

- BASE MAP IMAGERY FROM ESRI/MICROSOFT, "WORLD IMAGERY", WEB BASEMAP SERVICE LAYER, 2011.
- CONSTRUCTION DESIGN WORK SUPPLIED BY WisDOT.
- PROPERTY BOUNDARIES SUPPLIED BY WINNEBAGO COUNTY GIS DEPARTMENT.
- HISTORIC BORING / WELL LOCATIONS AND PROPERTY BOUNDARIES DIGITIZED FROM HIMALAYAN CONSULTANTS, LLC PHASE 1 & 2 FIGURES, LOCATIONS ARE APPROXIMATE
- TCE ISOCONCENTRATION DEVELOPED USING LOGARITHMIC SCALE.
- TEMPORARY WELL GROUND SURFACE ELEVATION IS DERIVED FROM 10 METER DIGITAL ELEVATION MODEL.
- TCE PAL - 0.5 µg/L, ES - 5.0 µg/L



PROJECT:		WISDOT ID# 6190-17-00 STH 116 WINNECONNE, WISCONSIN	
SHEET TITLE:		GROUNDWATER FLOW AND CONTAMINATION CONCENTRATION MAP SEPTEMBER 2014	
DRAWN BY:	RHODE B	SCALE:	PROJ. NO. 223432
CHECKED BY:	SIEWERT D	1: 600	FILE NO. 223432-012.mxd
APPROVED BY:	HAAK D	DATE PRINTED:	FIGURE 4
DATE:	NOVEMBER 2014		

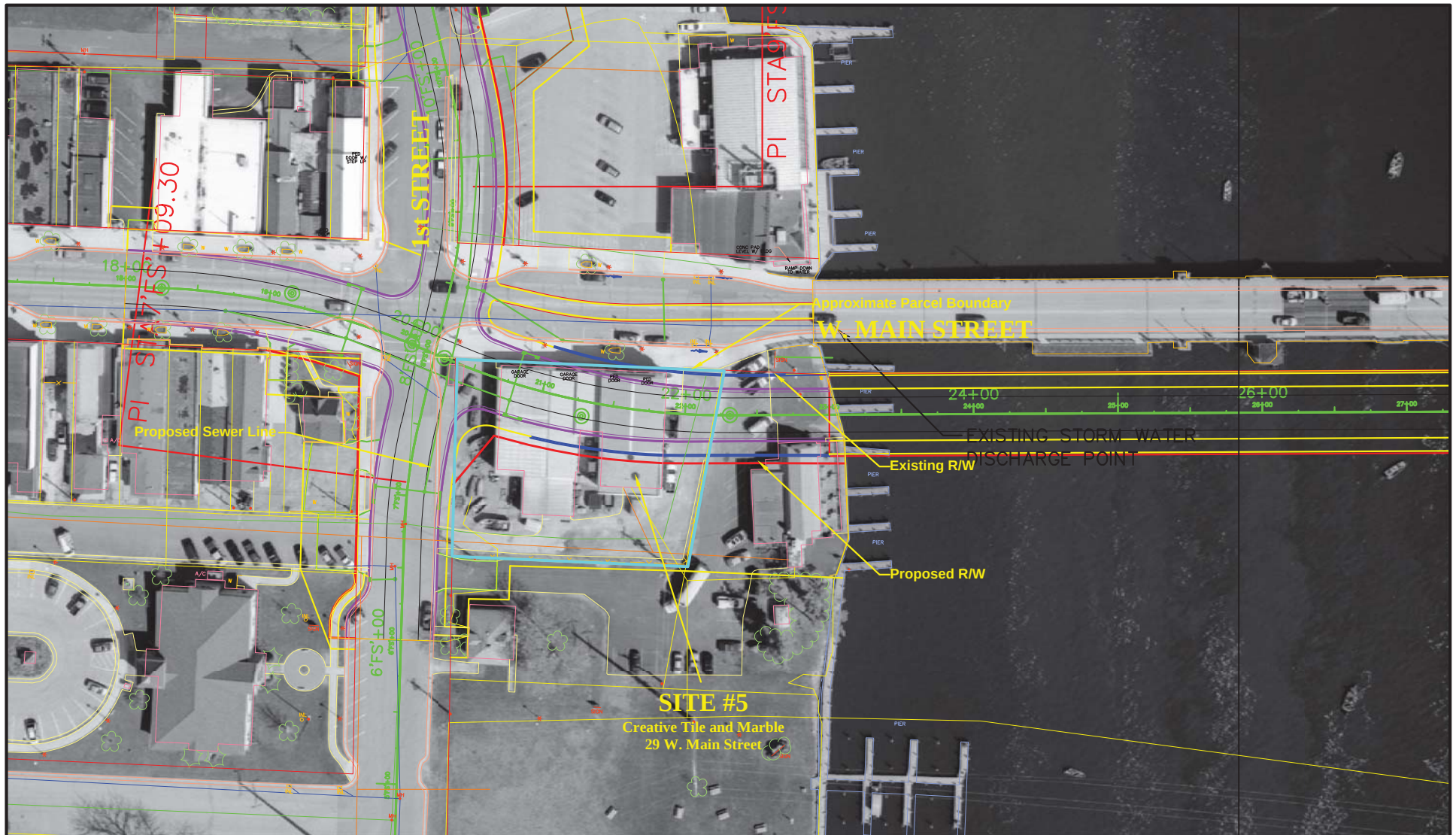


708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

Appendix A

Background Information

Site #5
Creative Tile and Marble (29 W. Main Street)



Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

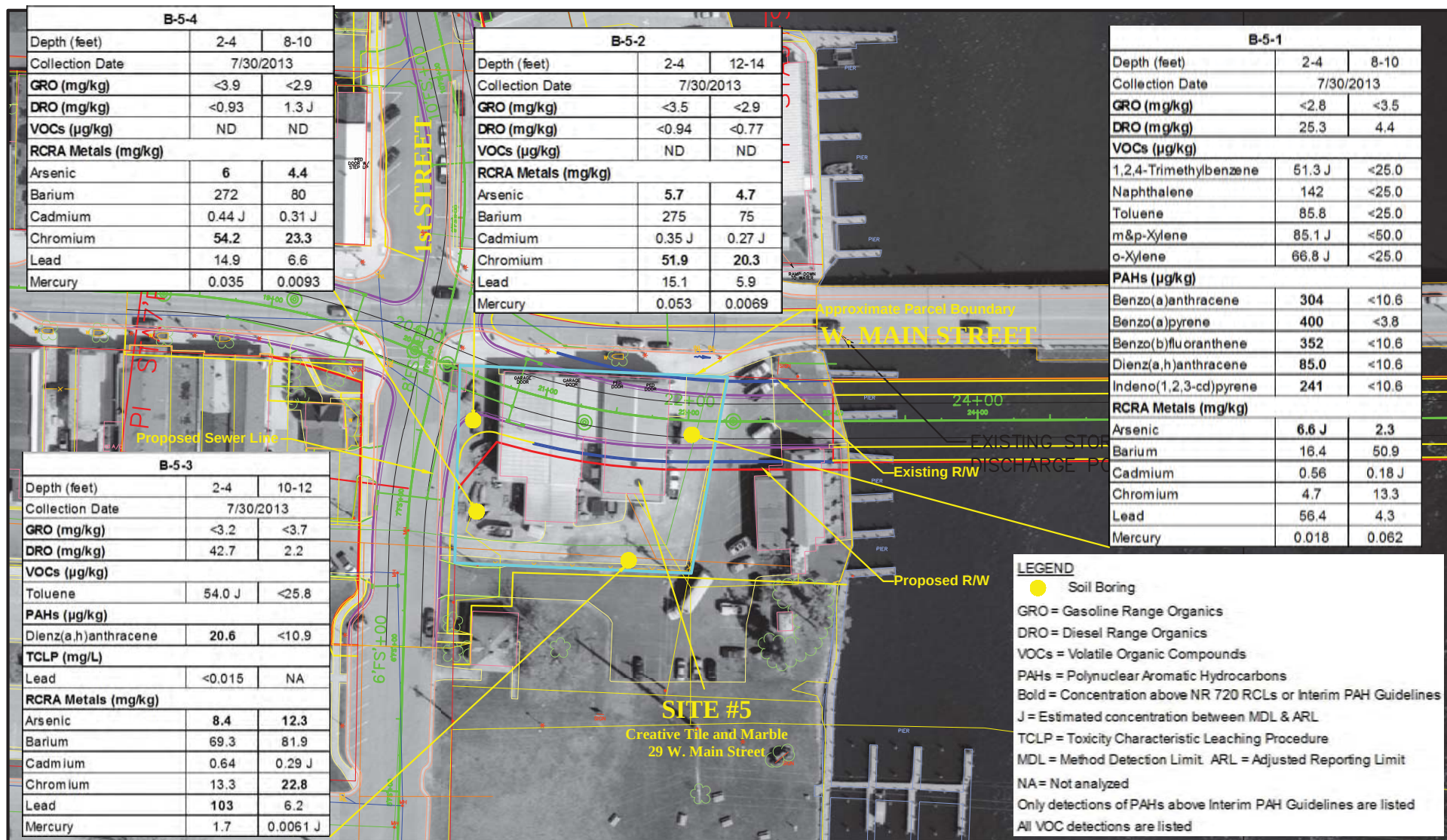
FIGURE 3.1: SITE OVERVIEW MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

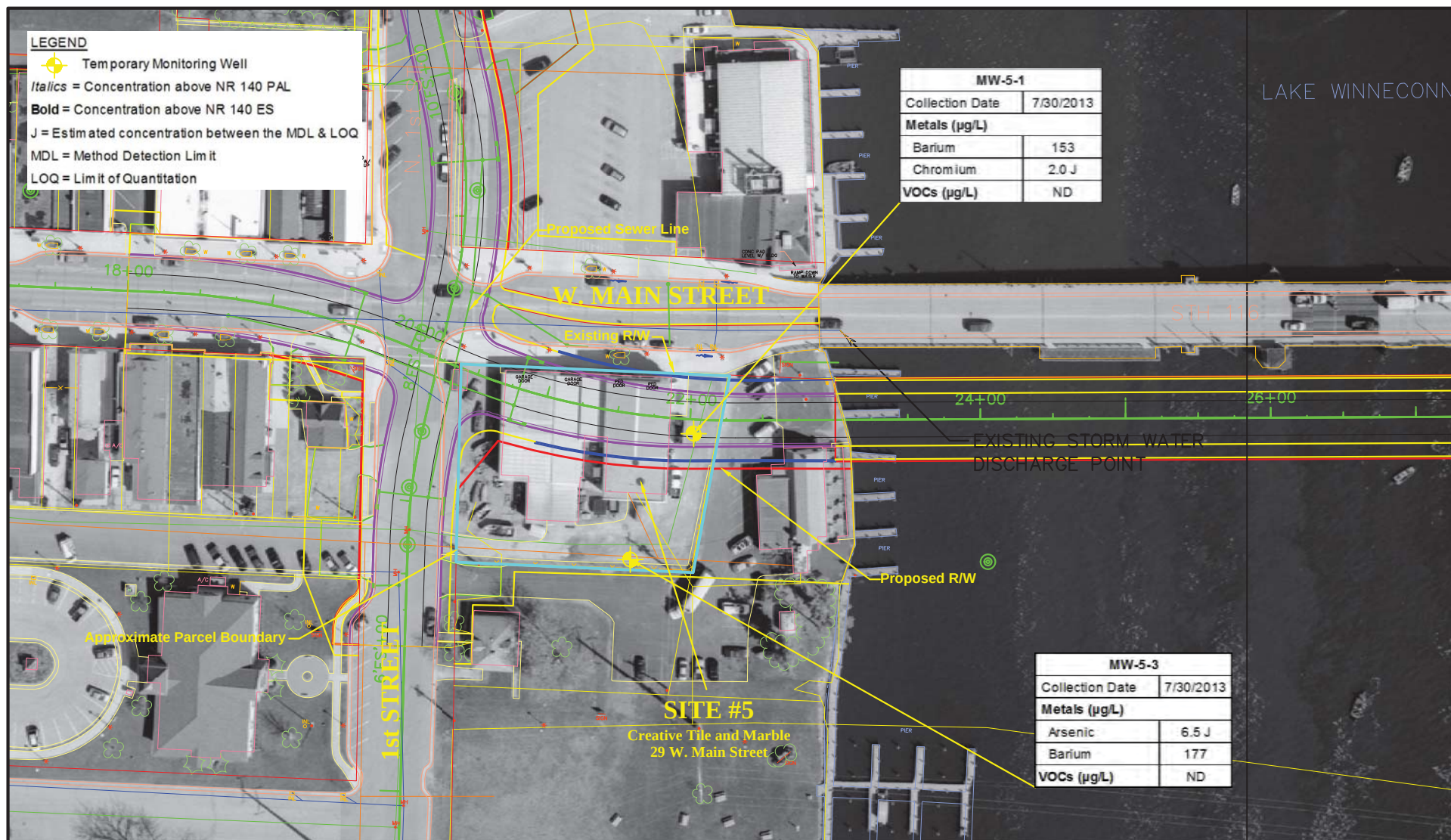
FIGURE 3.2: SOIL QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

FIGURE 3.3: GROUNDWATER QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin



TABLE 1 FIELD SCREENING RESULTS Phase 2 Hazardous Materials Investigation Creative Tile and Marble (29 W. Main Street) Winneconne, Winnebago County Project ID: 6190-17-00					
Boring ID		B-5-1	B-5-2	B-5-3	B-5-4
Date		7/30/13	7/30/13	7/30/13	7/30/13
Depth (feet)	0-2	0.0	0.0	0.0	0.0
	2-4	0.0	0.0	0.0	0.0
	4-6	0.0	0.0	0.0	0.0
	6-8	0.0	0.0	0.0	0.0
	8-10	0.0	0.0	0.0	0.0
	10-12	0.0	0.0	0.0	0.0
	12-14	0.0	0.0	0.0	0.0
	14-16	0.0*	0.0	0.0*	0.0*
	16-18		0.0		
	18-20		0.0		
Notes: Results provided in instrument units (IU). * = sample depth equals 14 – 15 feet					

5.2 Groundwater Conditions

Saturated soil conditions were observed in borings B-5-1 and B-5-3 at depths ranging from 5 to 7 feet bgs. Groundwater in temporary wells MW-5-1 and MW-5-3 was encountered between 4.5 and 4.9 feet bgs. Temporary monitoring well MW-5-2 had insufficient groundwater recharge for sample collection. It should be noted that groundwater depths can vary throughout the year, depending on several factors including seasonal variations in precipitation, infiltration, and surface water runoff.

Refer to the soil boring logs in Attachment B for additional information regarding groundwater conditions encountered at each boring location.

6.0 ANALYTICAL RESULTS

6.1 Soil Samples

Laboratory analyses were performed on two soil samples selected from each borehole, at various depths ranging from 2 to 14 feet bgs.

No GRO was detected in any of the soil samples analyzed. DRO (1.3 J to 42.7 mg/kg) was detected in five of the eight samples analyzed, at concentrations below the NR 720 RCL [Ref. 6]. A "J" denotes a concentration flagged by the laboratory as an estimated concentration.

Several VOCs were detected in sample B-5-1 2-4' including 1,2,4-trimethylbenzene (51.3 J µg/kg), naphthalene (142 µg/kg), toluene (85.8 µg/kg), and xylenes (151.9 J µg/kg), at concentrations below the respective NR 720 RCL, if applicable. Toluene (54.0 J µg/kg) was detected in sample B-5-3 2-4', below the NR 720 RCL.

Six RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples analyzed. Arsenic (2.3 to 12.3 mg/kg) was detected at concentrations above the NR 720 RCL in each of the eight soil samples analyzed. Barium (16.4 to 275 mg/kg), cadmium (0.18 J to 0.64 mg/kg), and mercury (0.0061 J to 1.7 mg/kg) were identified in each of the eight soil samples analyzed, below the respective NR 720 RCL, if applicable. Chromium (4.7 mg/kg to 54.2 mg/kg) was detected in each of the eight soil samples, and concentrations in five samples (B-5-2 2-4', B-5-2 12-14', B-5-3 10-12', B-5-4 2-4', and B-5-4 8-10') were identified above the NR 720 RCL.

Lead (4.3 mg/kg to 103 mg/kg) was detected in each of the eight soil samples analyzed, and concentrations in B-5-1 2-4' (56.4 mg/kg) and B-5-3 2-4' (103 mg/kg) exceeded the NR 720 RCL. A Toxicity Characteristic Leaching Procedure (TCLP) test was conducted on sample B-5-3 2-4' because the lead concentration exceeded 20 times the NR 661 toxicity levels. The TCLP result was <0.015 mg/L, which is well below the NR 661 toxicity characteristic level of 5 mg/L.

Eighteen PAHs were detected in several of the soil samples analyzed. Benzo(a)pyrene (400 µg/kg in B-5-1 2-4' and 90.9 µg/kg in B-5-3 2-4'), benzo(b)fluoranthene (352 µg/kg in B-5-1 2-4' and 100 µg/kg in B-5-3 2-4'), dibenzo(a,h)anthracene (85.0 µg/kg in B-5-1 2-4' and 20.6 µg/kg in B-5-3 2-4'), benzo(a)anthracene (304 µg/kg in B-5-3 2-4') and indeno(1,2,3-c,d)pyrene (241 µg/kg in B-5-3 2-4') were identified at concentrations above the respective Interim RCL for PAHs.

Table 2 presents a summary of soil quality results. Refer to Figure 3.2, Attachment A for sample locations and analytical results.

TABLE 2
SOIL QUALITY RESULTS
Phase 2 Hazardous Materials Investigation
Creative Tile and Marble (29 W. Main Street), Winneconne, Winnebago County
Project ID: 6190-17-00

Sample I.D.	B-5-1		B-5-2		B-5-3		B-5-4		NR 720 RCL / Interim RCL
Depth (feet)	2-4	8-10	2-4	12-14	2-4	10-12	2-4	8-10	
Collection Date	7/30/2013		7/30/2013		7/30/2013		7/30/2013		
GRO (mg/kg)	<2.8	<3.5	<3.5	<2.9	<3.2	<3.7	<3.9	<2.9	100/250*
DRO (mg/kg)	25.3	4.4	<0.94	<0.77	42.7	2.2	<0.93	1.3 J	100/250*
PAHs (µg/kg)									
Acenaphthene	9.3 J	<10.6	<11.3	<9.8	<9.8	<10.9	<11.6	<9.6	38,000
Acenaphthylene	15.7 J	<10.6	<11.3	<9.8	<9.8	<10.9	<11.6	<9.6	700
Anthracene	58.8	<10.6	<11.3	<9.8	34.7	<10.9	<11.6	<9.6	3,000,000
Benzo(a)anthracene	304	<10.6	<11.3	<9.8	85.0	<10.9	<11.6	<9.6	88
Benzo(a)pyrene	400	<3.8	<4.0	<3.5	90.9	<3.9	5.1 J	<3.4	8.8
Benzo(b)fluoranthene	352	<10.6	<11.3	<9.8	100	<10.9	19.7 J	<9.6	88
Benzo(g,h,i)perylene	276	<10.6	<11.3	<9.8	60.3	<10.9	<11.6	<9.6	1800
Benzo(k)fluoranthene	358	<3.7	<4.0	<3.5	82.5	<3.8	6.4 J	<3.4	880
Chrysene	362	<10.6	<11.3	<9.8	119	<10.9	<11.6	<9.6	8800
Dienz(a,h)anthracene	85.0	<10.6	<11.3	<9.8	20.6	<10.9	<11.6	<9.6	8.8
Fluoranthene	455	<10.6	<11.3	<9.8	182	<10.9	15.6 J	<9.6	500,000
Fluorene	10.5 J	<10.6	<11.3	<9.8	<9.8	<10.9	<11.6	<9.6	100,000
Indeno(1,2,3-cd)pyrene	241	<10.6	<11.3	<9.8	51.8	<10.9	<11.6	<9.6	88
1-Methylnaphthalene	33.6	<3.7	<4.0	<3.5	105	<3.8	<4.1	<3.4	23,000
2-Methylnaphthalene	40.2	<10.6	<11.3	<9.8	131	<10.9	<11.6	<9.6	20,000
Naphthalene	37.4	<10.6	<11.3	<9.8	105	<10.9	<11.6	<9.6	400
Phenanthrene	120	<10.6	<11.3	<9.8	160	<10.9	<11.6	<9.6	1800
Pyrene	467	<10.6	<11.3	<9.8	170	<10.9	15.0 J	<9.6	500,000
VOCs (µg/kg)									
1,2,4-Trimethylbenzene	51.3 J	<25.0	<26.0	<25.0	<27.2	<25.8	<25.8	<25.5	NSE
Naphthalene	142	<25.0	<26.0	<25.0	<27.2	<25.8	<11.6	<25.5	NSE
Toluene	85.8	<25.0	<26.0	<25.0	54.0 J	<25.8	<11.6	<25.5	1,500
m&p-Xylene	85.1 J	<50.0	<52.1	<50.0	<54.3	<51.5	<11.6	<51.0	4,100
o-Xylene	66.8 J	<25.0	<26.0	<25.0	<27.2	<25.8	<11.6	<25.5	
TCLP (mg/L)									
Lead	NA	NA	NA	NA	<0.015	NA	NA	NA	
RCRA Metals (mg/kg)									
Arsenic	6.6 J	2.3	5.7	4.7	8.4	12.3	6.0	4.4	0.039
Barium	16.4	50.9	275	75.0	69.3	81.9	272	80.0	NSE
Cadmium	0.56	0.18 J	0.35 J	0.27 J	0.64	0.29 J	0.44 J	0.31 J	8
Chromium	4.7	13.3	51.9	20.3	13.3	22.8	54.2	23.3	14
Lead	56.4	4.3	15.1	5.9	103	6.2	14.9	6.6	50
Mercury	0.018	0.062	0.053	0.0069	1.7	0.0061 J	0.035	0.0093	NSE

Notes :

Analytes detected above the method detection limit in at least one sample are included in the table
 GRO = gasoline range organics; DRO = diesel range organics; VOC = volatile organic compounds; TCLP = toxicity characteristic leaching procedure
 RCRA = Resource Conservation and Recovery Act; **Bold** result indicates concentration exceeds NR 720 or Interim RCLs (Source: WDNR Publication RR-519-97)
 mg/kg = milligrams per kilogram ; mg/L milligrams per liter; µg/kg = micrograms per kilogram
 J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
 NSE = no standard established; RCL= residual contaminant level; NA = not analyzed
 * = RCLs (mg/kg) based on permeability of soils per NR 720 for groundwater protection

Refer to Attachment D for a complete laboratory report for each sample.

6.2 Groundwater Samples

Based on the laboratory analytical results of groundwater samples collected from temporary wells MW-5-1 and MW-5-3, no VOCs or RCRA metals were detected at concentrations exceeding the respective NR 140 ES. Arsenic (6.5 J µg/L) was identified in MW-5-3 and chromium (2.0 J µg/L) was identified in MW-5-1, at concentrations above the respective NR 140 PAL. Barium (153 µg/L in MW-5-1 and 177 µg/L in MW-5-3) was detected below the NR 140 PAL in both samples. One VOC, p-Isopropyltoluene (0.43 J µg/L), was detected in temporary well MW-5-1; no standard exists for this compound.

Refer to Figure 3.3 in Attachment B for the well locations and Attachment D for the laboratory results.

TABLE 3 GROUNDWATER RESULTS Phase 2 Hazardous Materials Investigation Creative Tile and Marble (29 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00				
Sample I.D.	MW-5-1	MW-5-3	NR 140 ES	NR 140 PAL
Collection Date	7/30/13	7/30/13	(µg/L)	(µg/L)
VOCs (µg/L)				
p-Isopropyltoluene	0.43 J	<0.40	NSE	NSE
RCRA Metals (µg/L)				
Arsenic	<4.2	6.5 <i>J</i>	10	1
Barium	153	177	2,000	400
Cadmium	<0.48	<0.48	100	10
Chromium	2.0 <i>J</i>	<1.4	5	0.5
Lead	<2.7	<2.7	15	1.5
Mercury	<0.10	<0.10	2	0.2
Selenium	<5.2	<5.2	50	10
Silver	<1.7	<1.7	50	10
Notes: Analytes detected above the method detection limit in at least one sample are included in the table VOCs = volatile organic compounds RCRA = Resource Conservation and Recovery Act µg/L = micrograms per liter NSE = no standard established J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit <i>Italicized</i> results indicate concentration exceeds NR 140 Preventative Action Limit (PAL) Bold results indicate concentration exceeds NR 140 Enforcement Standard (ES)				

6.3 Waste Characterization Sample

A composite soil sample (Proto B-5) was collected from the site and analyzed for landfill acceptance criteria (Protocol B), in order to provide waste characterization for potential off-site disposal and/or treatment of contaminated soils at a landfill.

Based on the laboratory analytical results, no cyanide, PCBs, TCLP VOCs, or TCLP semi-volatiles were detected in the sample. TCLP metal detected consisted of mercury (0.00064 mg/L). The general chemistry results for the sample included: flashpoint >210 deg. F; pH 8.8; specific gravity 1.4; sulfide 0.0 J mg/kg. No free liquids were encountered in the sample.

Table 4 presents a summary of soil quality results for the composite sample. See Attachment D for the complete laboratory report.

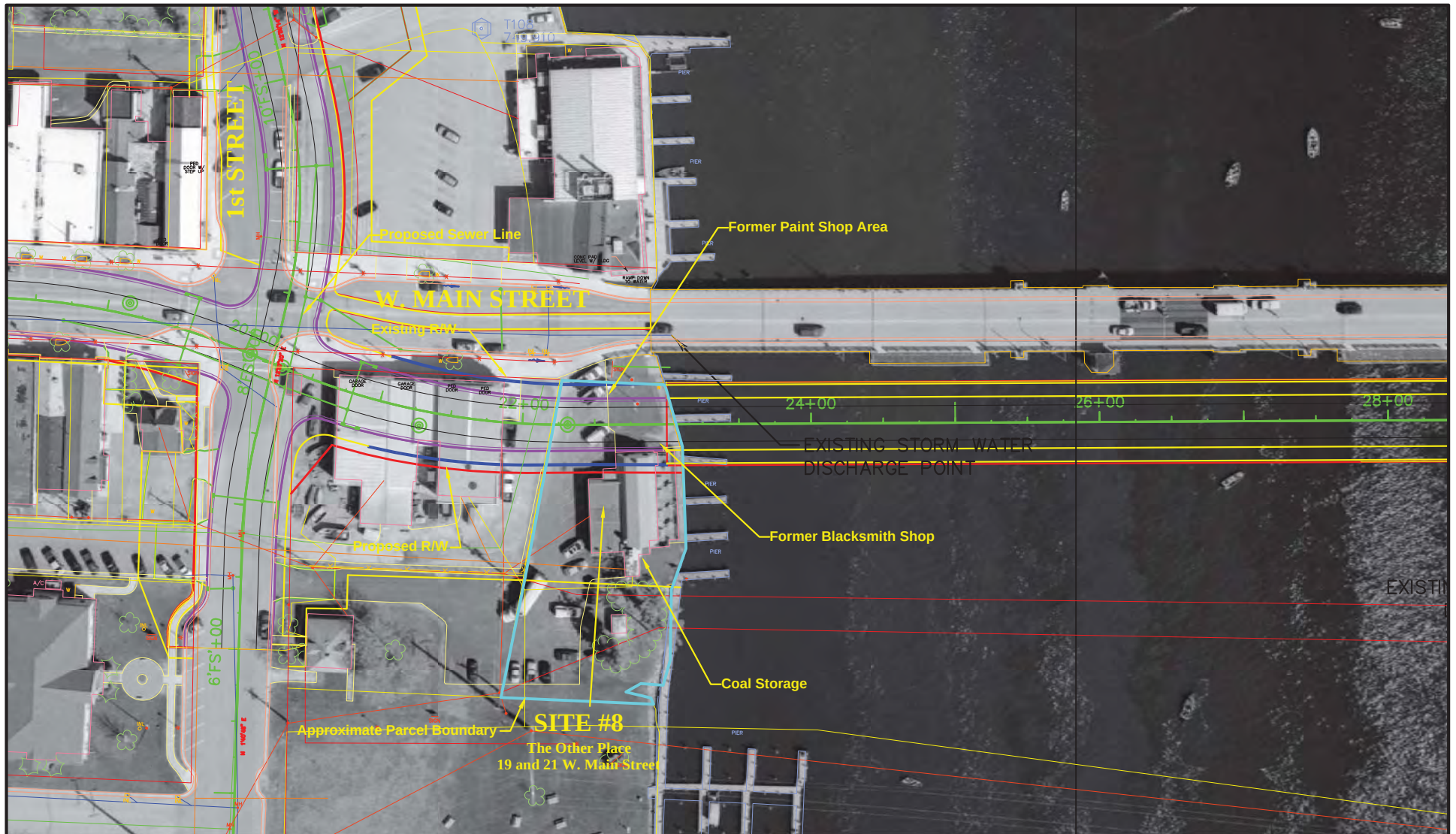
TABLE 4 LABORATORY ANALYTICAL RESULTS - Protocol B Phase 2 Hazardous Materials Investigation Creative Tile and Marble (29 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Sample I.D. Proto B-5	Sample Results	Units
General Chemistry		
% of Solids	76.4	%
Cyanide (total)	0.0 J	mg/kg
Flashpoint	>210	°F
pH	8.8	pH Units
Specific Gravity	1.4	N/A
Free liquids	Pass	N/A
Sulfide	0.0 J	mg/kg
TCLP Metals		
Arsenic	<0.12	mg/L
Barium	<1.2	mg/L
Cadmium	<0.0025	mg/L
Chromium	<0.12	mg/L
Copper	<0.12	mg/L
Lead	<0.015	mg/L
Mercury	0.00064	mg/L
Nickel	<0.12	mg/L
Selenium	<0.12	mg/L
Silver	<0.12	mg/L
Zinc	<0.12	mg/L
PCBs		
PCB-1016	<0.0327	mg/kg
PCB-1221	<0.0327	mg/kg

TABLE 4 LABORATORY ANALYTICAL RESULTS - Protocol B Phase 2 Hazardous Materials Investigation Creative Tile and Marble (29 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Sample I.D. Proto B-5	Sample Results	Units
PCBs		
PCB-1232	<0.0327	mg/kg
PCB-1242	<0.0327	mg/kg
PCB-1248	<0.0327	mg/kg
PCB-1254	<0.0327	mg/kg
PCB-1260	<0.0327	mg/kg
TCLP VOCs		
Benzene	<0.005	mg/L
Methyl Ethyl Ketone	<0.027	mg/L
Carbon Tetrachloride	<0.0037	mg/L
Chlorobenzene	<0.0036	mg/L
Chloroform	<0.0069	mg/L
1,2-Dichloroethane	<0.0048	mg/L
1,1-Dichloroethene	<0.0043	mg/L
Tetrachloroethene	<0.0047	mg/L
Trichloroethene	<0.0043	mg/L
Vinyl Chloride	<0.0018	mg/L
TCLP Semi-VOCs		
1,4-Dichlorobenzene	<0.0086	mg/L
2,4-Dinitrotoluene	<0.0080	mg/L
Hexachloro-1,3-butadiene	<0.0066	mg/L
Hexachlorobenzene	<0.0111	mg/L
Hexachloroethane	<0.0058	mg/L
2-Methylphenol (o-Cresol)	<0.0097	mg/L
3&4-Methylphenol (m&p Cresol)	<0.0077	mg/L
Nitrobenzene	<0.0137	mg/L
Pentachlorophenol	<0.0108	mg/L
Pyridine	<0.0143	mg/L
2,4,5-Trichlorophenol	<0.010	mg/L
2,4,6-Trichlorophenol	<0.0107	mg/L
Notes: VOCs = volatile organic compounds mg/kg = milligrams per kilogram mg/L = milligrams per liter TCLP = toxicity characteristic leaching procedure J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit		

7.0 FINDINGS

- Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to depths of approximately 2 to 10 feet bgs. The fill materials consisted mainly of dark brown to black sand, partially decomposed wood fragments, medium to fine sand with gravel, cinders, and black peat. Native brown to red clays with trace amounts of fine gravel were encountered below the fill materials to the terminal depths ranging from approximately 15 to 20 feet bgs.
- No GRO was detected in any of the samples analyzed. DRO was detected in five of eight samples, below NR 720 standards.
- Several VOCs were detected in sample B-5-1 2-4' including 1,2,4-trimethylbenzene, naphthalene, toluene, and xylenes, at concentrations below the respective NR 720 RCL, if standards exist. Toluene was detected in sample B-5-3 2-4', below the NR 720 RCL.
- Six RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic was detected above the NR 720 RCL in each of the eight samples analyzed. Chromium was detected in each of the soil samples. Concentrations in five samples (B-5-2 2-4', B-5-2 12-14', B-5-3 10-12', B-5-4 2-4', and B-5-4 8-10') were identified above the NR 720 RCL for hexavalent chromium.
- Lead was detected in each of the eight soil samples analyzed, and concentrations in B-5-1 2-4' and B-5-3 2-4' exceeded the NR 720 RCL. A Toxicity Characteristic Leaching Procedure (TCLP) test was conducted on sample B-5-3 2-4' because the lead concentration exceeded 20 times the NR 661 toxicity levels. The TCLP result was <0.015 mg/L, which is well below the NR 661 toxicity characteristic level of 5 mg/L.
- Cadmium was detected in each of the samples analyzed at concentrations which are below the NR 720 RCL. No standards exist for barium and mercury detected in the samples.
- Eighteen PAHs were detected in several of the soil samples analyzed. Benzo(a)pyrene in B-5-1 2-4' and B-5-3 2-4', benzo(b)fluoranthene in B-5-1 2-4' and B-5-3 2-4'), dibenzo(a,h)anthracene in B-5-1 2-4' and B-5-3 2-4'), benzo(a)anthracene in B-5-3 2-4' and indeno(1,2,3-c,d)pyrene in B-5-3 2-4' were identified at concentrations above the respective Interim RCL for PAHs.
- Based on the laboratory analytical results of groundwater samples collected from temporary wells MW-5-1 and MW-5-3, no VOCs or RCRA metals were detected at concentrations exceeding the respective NR 140 ES. Arsenic was identified in MW-5-3 and chromium was identified in MW-5-1, at concentrations above the respective NR 140 PAL. Barium was

Site #8
The Other Place and Grill (19 and 21 W. Main Street)



Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

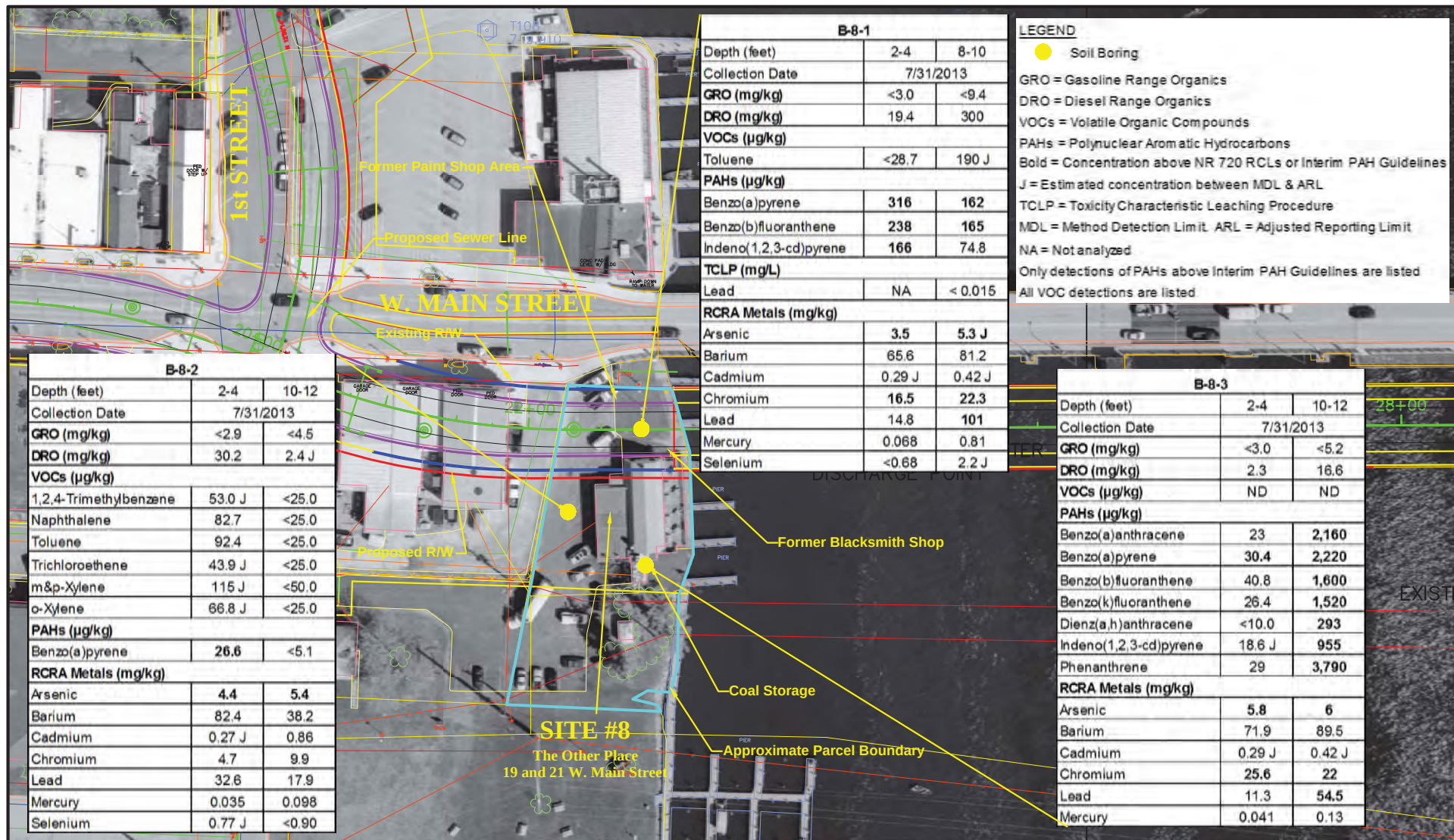
FIGURE 3.1: SITE OVERVIEW MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

FIGURE 3.2: SOIL QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin



TABLE 1 FIELD SCREENING RESULTS Phase 2 Hazardous Materials Investigation The Other Place (19-21 W. Main Street) Winneconne, Winnebago County Project ID: 6190-17-00				
Boring ID		B-8-1	B-8-2	B-8-3
Date		7/31/13	7/31/13	7/31/13
Depth (feet)	0-2	---	---	---
	2-4	0.0	0.0	0.0
	4-6	0.0	0.0	0.0
	6-8	0.0	NR	0.0
	8-10	0.0	NR	0.0
	10-12	0.0	NR	0.0
	12-14	0.0	0.0	0.0
	14-15	0.0*	0.0*	0.0*
Notes: Results provided in instrument units (IU). NR = No recovery * = sample depth equals 14 – 15 feet				

5.2 Groundwater Conditions

Saturated soil conditions were observed in all boreholes, at depths ranging from 5 to 7 feet bgs. Groundwater was encountered in each temporary well, at depths ranging from 4.1 to 5.5 feet bgs. It should be noted that groundwater depths can vary throughout the year, depending on several factors including seasonal variations in precipitation, infiltration, and surface water runoff.

Refer to the soil boring logs in Attachment B for additional information regarding groundwater conditions encountered at each boring location.

6.0 ANALYTICAL RESULTS

6.1 Soil Samples

Laboratory analyses were performed on two soil samples selected from each borehole, at various depths ranging from 2 to 12 feet bgs.

No GRO was detected in any of the samples collected. DRO (2.3 J to 300 mg/kg) was detected in all six samples. The DRO concentration in B-8-1 8-10' (300 mg/kg) was the only soil sample exceeding the generic NR 720 RCL [Ref. 6]. A "J" denotes a concentration flagged by the laboratory as an estimated concentration.

Several VOCs were detected in sample B-8-1 8-10' and B-8-2 2-4' including 1,2,4-trimethylbenzene (53.0 J µg/kg), naphthalene (82.7 µg/kg), toluene (92.4 to 190 J µg/kg), trichloroethene (43.9 J µg/kg), and total xylenes (181.8 J µg/kg) are all below their respective NR 720 RCLs or no standard has been established.

Seven of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, and selenium) were detected in the soil samples analyzed. Arsenic (3.5 to 6.0 mg/kg) was detected above the NR 720 generic soil RCL (direct contact pathway) of 0.039 mg/kg for the non-industrial use scenario, in all six samples. Chromium (4.7 to 25.6 mg/kg) was detected in each of the soil samples. Chromium concentrations in four samples (B-8-1 2-4' at 16.5 mg/kg, B-8-1 8-10' at 22.3 mg/kg, B-8-3 2-4' at 25.6 mg/kg, and B-8-3 10-12' at 22.0 mg/kg) were detected above the NR 720 RCL, for hexavalent chromium only.

Lead (11.3 to 101 mg/kg) was detected in each of the soil samples. Concentrations in two samples (B-8-1 8-10' at 101 mg/kg and B-8-3 10-12' at 54.5 mg/kg) exceeded the NR 720 RCL. A Toxicity Characteristic Leaching Procedure (TCLP) test was conducted on sample B-8-1 8-10' because the lead concentration exceeded 20 times the NR 661 toxicity levels. The TCLP result was <0.015 mg/L, which is well below the NR 661 toxicity characteristic level of 5 mg/L.

Barium (38.2 to 89.5 mg/kg), cadmium (0.27 J to 0.86 mg/kg), and mercury (0.035 to 0.81 mg/kg) were detected in each of the samples. Selenium (0.77 to 2.2 mg/kg) was also detected in two samples. All of these detected metals are all below their respective NR 720 RCLs or no standard has been established. Additionally, silver was not detected in any of the samples analyzed.

Eighteen PAHs were detected in several of the soil samples (See Table 2). Concentrations of seven compounds were detected in five samples that were above their respective Interim RCLs [Ref. 7]. Benzo(a)pyrene (26.6 to 2,220 mg/kg) was detected in all samples, except B-8-2 10-12'. Benzo(b)fluoranthene was detected in B-8-1 2-4' (238 µg/kg), B-8-1 8-10' (165 µg/kg), and B-8-3 10-12' (1,600 µg/kg), dibenzo(a,h)anthracene was detected in B-8-1 2-4' (53.2 µg/kg) and B-8-3 10-12' (293 µg/kg), indeno(1,2,3-c,d)pyrene was detected in B-8-1 2-4' (166 µg/kg) and B-8-3 10-12' (955 µg/kg). Additionally, benzo(a)anthracene (2,160 µg/kg) benzo(k)fluoranthene (1,520 µg/kg) and phenanthrene (3,790 µg/kg) were detected in B-8-3 10-12'.

Table 2 presents the summary of soil quality results. Also, refer to Figure 3.2, Attachment A for sample locations and analytical results.

TABLE 2 SOIL QUALITY RESULTS - DETECTED COMPOUNDS Phase 2 Hazardous Materials Investigation The Other Place (19 and 21 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00							
Sample I.D.	B-8-1		B-8-2		B-8-3		Generic NR 720 RCL**
Depth (feet)	2-4	8-10	2-4	10-12	2-4	10-12	
Collection Date	7/31/2013		7/31/2013		7/31/2013		
GRO (mg/kg)	<3.0	<9.4	<2.9	<4.5	<3.0	<5.2	100/250*
DRO (mg/kg)	19.4	300	30.2	2.4 J	2.3	16.6	100/250*
PAHs (µg/kg)							
Acenaphthene	<9.5	51.1 J	<9.0	<14.3	<10.0	<134	38,000
Acenaphthylene	31.5	55.7 J	<9.0	<14.3	<10.0	262 J	700
Anthracene	96.2	80.7	<9.0	<14.3	<10.0	778	3,000,000
Benzo(a)anthracene	312	168	24.7	<14.3	23.0	2,160	88
Benzo(a)pyrene	316	162	26.6	<5.1	30.4	2,220	8.8
Benzo(b)fluoranthene	238	165	38.0	21.4 J	40.8	1,600	88
Benzo(g,h,i)perylene	195	67.8	20.6	<14.3	25.1	1,120	1800
Benzo(k)fluoranthene	265	164	21.3	<5.0	26.4	1,520	880
Chrysene	295	185	37.6	<14.3	32.7	2,290	8800
Dienz(a,h)anthracene	53.2	<29.0	<9.0	<14.3	<10.0	293	8.8
Fluoranthene	683	452	42.2	<14.3	52.2	4,570	500,000
Fluorene	10.7 J	80.9	<9.0	<14.3	<10.0	<134	100,000
Indeno(1,2,3-cd)pyrene	166	74.8	15.2 J	<14.3	18.6 J	955	88
1-Methylnaphthalene	8.0 J	45.1 J	35.8	<5.0	8.5 J	110 J	23,000
2-Methylnaphthalene	10.7 J	68.6	39.7	<14.3	<10.0	<134	20,000
Naphthalene	17.9 J	347	24.5	<14.3	<10.0	175 J	400
Phenanthrene	407	381	54.2	14.4 J	29.0	3,790	1800
Pyrene	636	373	39.0	<14.3	44.1	4,440	500,000
VOCs (µg/kg)							
1,2,4-Trimethylbenzene	<28.7	<28.7	53.0 J	<25.0	<26.9	<25.8	NSE
Naphthalene	<28.7	<28.7	82.7	<25.0	<26.9	<25.8	NSE
Toluene	<28.7	190 J	92.4	<25.0	<26.9	<25.8	1,500
Trichloroethene	<28.7	<28.7	43.9 J	<25.0	<26.9	<25.8	NSE
m&p-Xylene	<57.5	<57.5	115 J	<50.0	<53.8	<51.5	4,100
o-Xylene	<28.7	<28.7	66.8 J	<25.0	<26.9	<25.8	
TCLP (mg/L)							
Lead	NA	< 0.015	NA	NA	NA	NA	
RCRA Metals (mg/kg)							
Arsenic	3.5	5.3 J	4.4	5.4	5.8	6.0	0.039 (b)
Barium	65.6	81.2	82.4	38.2	71.9	89.5	NSE
Cadmium	0.29 J	0.42 J	0.27 J	0.86	0.29 J	0.42 J	8 (b)
Chromium	16.5	22.3	4.7	9.9	25.6	22.0	14 (a) (b)
Lead	14.8	101	32.6	17.9	11.3	54.5	50 (b)
Mercury	0.068	0.81	0.035	0.098	0.041	0.13	NSE
Selenium	<0.68	2.2 J	0.77 J	<0.90	<0.63	<1.1	NSE
Silver	<0.24	<0.70	<0.21	<0.32	<0.23	<0.41	NSE
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table GRO= Gasoline Range Organics; DRO= Diesel Range Organics; VOC= Volatile Organic Compounds; TCLP= Toxicity characteristic leaching procedure RCRA = Resource Conservation and Recovery Act; Bold results indicate concentrations exceeding NR 720 or Interim RCLs mg/kg=milligrams per kilogram and mg/L milligrams per liter=parts per million (ppm); µg/kg=micrograms per kilogram=parts per billion (ppb) J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit ; NSE = No Standard Established; RCL= (a) = NR 720 RCL for Chromium, hexavalent (b) = NR 720 RCL for non-industrial land use * = RCLs (mg/kg) based on permeability of soils per NR 720 ** = Interim RCL (µg/kg) for groundwater pathway (Source: WDNR Pub RR-519-97)							

Refer to Attachment D for complete laboratory report for each sample.

6.2 Groundwater Samples

Based on the laboratory analytical results of groundwater samples collected from temporary wells MW-8-1, MW-8-2, and MW-8-3, no VOCs were detected at concentrations exceeding their respective NR 140 Enforcement Standards (ES) or Preventative Action Levels (PAL) [Ref. 8].

Four of the eight RCRA metals were detected in the samples. Arsenic (7.6 J µg/L) was identified in MW-8-3, chromium (1.9 µg/L) was identified in MW-8-1, and lead (4.3 µg/L) was identified in MW-8-2, which were all above their respective NR 140 PAL. Barium (110 and 207 µg/L) was detected below the NR 140 PAL in all samples.

Also refer to Figure 3.3 in Appendix B for the well locations and Appendix D for the laboratory results.

TABLE 3 GROUNDWATER RESULTS - DETECTED COMPOUNDS Phase 2 Hazardous Materials Investigation The Other Place (19 and 21 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00					
Sample I.D.	MW-8-1	MW-8-2	MW-8-3	NR 140 ES	NR 140 PAL
Collection Date	7/31/13	7/31/13	7/31/13	(µg/L)	(µg/L)
VOCs (µg/L)	ND	ND	ND	---	---
RCRA Metals (µg/L)					
Arsenic	<4.2	<4.2	7.6 <i>J</i>	10	1
Barium	207	189	110	2,000	400
Cadmium	<0.48	<0.48	<0.48	100	10
Chromium	1.9 <i>J</i>	<1.4	<1.4	5	0.5
Lead	<2.7	4.3 <i>J</i>	<2.7	15	1.5
Mercury	<0.10	<0.10	<0.10	2	0.2
Selenium	<5.2	<5.2	<5.2	50	10
Silver	<1.7	<1.7	<1.7	50	10
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table VOCs = Volatile Organic Compounds RCRA = Resource Conservation and Recovery Act µg/L = micrograms per liter = parts per billion (ppb) ND = Not Detected J = Concentration reported is between the Method Detection Limit and the Limit of Quantitation (Adjusted Reporting Limit) Italics results indicate concentrations exceeding NR 140 PAL Bold results indicate concentrations exceeding NR 140 ES ES = Enforcement Standard per NR 140; PAL = Preventative Action Limit					

TABLE 4 LABORATORY ANALYTICAL RESULTS - Protocol B Phase 2 Hazardous Materials Investigation The Other Place (19 and 21 W. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Sample I.D. Proto B-8	Sample Results	Units
General Chemistry		
% of Solids	67.6	%
Cyanide (total)	0.0080 J	mg/kg
Flashpoint	>210	°F
pH	7.9	pH Units
Specific Gravity	1.5	N/A
Free liquids	Fail	N/A
Sulfide	0.0 J	mg/kg
TCLP Metals		
Arsenic	<0.12	mg/L
Barium	<1.2	mg/L
Cadmium	<0.0025	mg/L
Chromium	<0.12	mg/L
Copper	<0.12	mg/L
Lead	0.040	mg/L
Mercury	0.00026	mg/L
Nickel	<0.12	mg/L
Selenium	<0.12	mg/L
Silver	<0.12	mg/L
Zinc	<0.12	mg/L
PCBs		
PCB-1016	<0.037	mg/kg
PCB-1221	<0.037	mg/kg
PCB-1232	<0.037	mg/kg
PCB-1242	<0.037	mg/kg
PCB-1248	<0.037	mg/kg
PCB-1254	<0.037	mg/kg
PCB-1260	<0.037	mg/kg
TCLP VOCs		
Benzene	<0.005	mg/L
Methyl Ethyl Ketone	<0.027	mg/L
Carbon Tetrachloride	<0.0037	mg/L
Chlorobenzene	<0.0036	mg/L
Chloroform	<0.0069	mg/L
1,2-Dichloroethane	<0.0048	mg/L
1,1-Dichloroethene	<0.0043	mg/L
Tetrachloroethene	<0.0047	mg/L
Trichloroethene	<0.0043	mg/L
Vinyl Chloride	<0.0018	mg/L

TABLE 4 (Continued) LABORATORY ANALYTICAL RESULTS – Protocol B Phase 2 Hazardous Materials Investigation The Other Place (19 and 21 W. Main Street) Project ID: 6190-17-00		
Sample I.D. Proto B-8	Sample Results	Units
TCLP Semi-VOCs		
1,4-Dichlorobenzene	<0.0086	mg/L
2,4-Dinitrotoluene	<0.0080	mg/L
Hexachloro-1,3-butadiene	<0.0066	mg/L
Hexachlorobenzene	<0.0111	mg/L
Hexachloroethane	<0.0058	mg/L
2-Methylphenol (o-Cresol)	<0.0097	mg/L
3&4-Methylphenol (m&p Cresol)	<0.0077	mg/L
Nitrobenzene	<0.0137	mg/L
Pentachlorophenol	<0.0108	mg/L
Pyridine	<0.0143	mg/L
2,4,5-Trichlorophenol	<0.010	mg/L
2,4,6-Trichlorophenol	<0.0107	mg/L
Notes: VOCs = Volatile Organic Compounds mg/kg = milligrams per kilogram = parts per million (ppm) mg/L = milligrams per liter = parts per million (ppm) TCLP = Toxicity Characteristic Leaching Procedure		

7.0 FINDINGS

- Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to depths of approximately 2 to 12 feet bgs. The fill materials consisted mainly of dark brown sandy clay, peat / muck with trace wood fragments, medium to fine sand with gravel, cinders, and shell fragments. Native brown to red clay tills with trace amounts of fine gravel were encountered below the fill materials to the terminal depths of 15 feet bgs. Groundwater was encountered in each temporary well, at depths ranging from 4.1 to 5.5 feet bgs.
- No elevated PID readings were detected in the soil samples retrieved from the borings.
- No GRO was detected in any of the samples collected. The DRO concentration in B-8-1 8-10' was the only soil sample exceeding the generic NR 720 RCL.
- Several VOCs were detected in sample B-8-1 8-10' and B-8-2 2-4' including 1,2,4-trimethylbenzene, naphthalene, toluene, trichloroethene, and total xylenes are all below their respective NR 720 RCLs or no standard has been established.

- Seven of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic was detected above the NR 720 generic soil RCL in all six samples. Chromium was detected in each of the soil samples. Chromium concentrations in four samples (B-8-1 2-4', B-8-1 8-10', B-8-3 2-4', and B-8-3 10-12') were detected above the NR 720 RCL, for hexavalent chromium only.
- Lead was detected in each of the soil samples. Concentrations in two samples (B-8-1 8-10' and B-8-3 10-12') exceeded the NR 720 RCL. A Toxicity Characteristic Leaching Procedure (TCLP) test was conducted on sample B-8-1 8-10' because the lead concentration exceeded 20 times the NR 661 toxicity levels. The TCLP result was <0.015 mg/L, which is well below the NR 661 toxicity characteristic level of 5 mg/L.
- Cadmium was detected in each of the samples analyzed at concentrations which are below the NR 720 RCL. No standards exist for barium, mercury, and selenium detected in the samples.
- Concentrations of seven compounds (benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, benzo(a)anthracene, benzo(k)fluoranthene, and phenanthrene) were detected in five samples that were above their respective Interim RCLs.
- Based on the laboratory analytical results of groundwater samples collected from temporary wells MW-8-1, MW-8-2, and MW-8-3, no VOCs were detected.
- Arsenic in MW-8-3, chromium in MW-8-1, and lead in MW-8-2 were detected above their respective NR 140 PAL criteria. Barium was also detected in all of the groundwater samples, at concentrations below the NR 140 PAL.
- Based on the interview with the owner during the Phase 1 investigation, it appears that the building was constructed prior to 1980; therefore, potential asbestos containing materials (ACM) and lead based paint (LBP) may be present in the building on site.

8.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on the results of Himalayan's Phase 2 HMI, evidence of hazardous substance release (petroleum and RCRA metals impacts) was documented at the site. Petroleum and RCRA metals impacts detected in the soil borings appear to be associated with the former blacksmith / paint shop at the site or possibly unknown fill materials along the shoreline. Therefore, Himalayan recommends that a Phase 3 hazardous materials investigation (FDM Procedure: 21-35-15) be considered for the site to fully characterize and define the lateral and vertical extent of soil and groundwater contamination and assist in determining the value of the parcel for acquisition purposes, prior to the total take of the site.

- The petroleum and RCRA metals impacts discovered at the site should be reported to the WDNR in order to satisfy the notification requirements per hazardous substance spills law, Section 292.11(2).
- Pre-demolition asbestos and lead surveys should be performed to evaluate whether ACMs or LBP are present in the structure. All demolition activities should be performed in accordance with local, state, and federal regulations.

9.0 REFERENCES

1. Winnebago County GIS Website. WINGS Property Profiler.
http://wcfgis.co.winnebago.wi.us/cgi-bin/wings/doc/gis_menu.cgi
2. Himalayan Consultants, LLC, (August 2012). Phase I Hazardous Material Assessment, WisDOT Project ID 1030-20-00, STH 116 Corridor Study (2nd Street - 2nd Avenue), Winneconne, Winnebago County, Wisconsin.
3. Wisconsin Department of Agriculture, Trade and Consumer Protection - Storage Tank Database –http://apps.commerce.state.wi.us/ER_Tanks/ER-EN-TankSearch.htm
4. Wisconsin Department of Transportation (December 2011). Facilities Development Manual, Procedures 21-35-10 and 21-35-30.
5. Wisconsin Department Natural Resources (March 2011). Wisconsin Administrative Code NR 141, Groundwater Monitoring Well Requirements.
6. Wisconsin Department Natural Resources (September 2007). Wisconsin Administrative Code NR 720, Soil Cleanup Standards.
7. Wisconsin Department Natural Resources (April 1997). Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance, Publication RR-519-97.
8. Wisconsin Department Natural Resources (January 2012). Wisconsin Administrative Code NR 140, Groundwater Quality.

Site #9
Radtkke Contractors, Inc. (15 and 21 E. Main Street)

Site #9
Radtke Contractors, Inc.
15 and 21 E. Main Street and
Parcel South of 21 E. Main Street
Main Street: STA 30+00 to 31+65 RT
First Avenue: STA 6'FA'+50 to 8'FA'+00 LT

The site address was identified on the LUST (BRRTS# 03-71-001089) database. This site consists of three separate parcels. The west parcel (parcel #1010195) is addressed as 15 E. Main Street. The east parcel (parcel #1910194) is addressed as 21 E. Main Street and the south parcel (parcel #1910196) is not addressed. According to the WDSPS Storage Tank Database, no tanks are registered to the site. Currently, the site has been owned by Executive Investments LLC since 2008, and was previously owned by Radtke Family LLC from at least 1998 to 2007.

According to the Sanborn maps reviewed, no structures were identified on the west parcel in any of the maps. The east parcel was depicted as an automobile garage with two gasoline tanks in 1929, contained no structures in 1913, was utilized as a repair shop and shanty in 1898 and 1904, and a cooper shop and shanty in 1893. The south parcel was utilized as an ice house in 1893. From 1898 to 1929, the south parcel was identified as Winneconne Heat, Light, and Power Company which consisted of a building with a boat house and pier, garage with repair shop, an electric light plant, and is listed as a gas producer. According to the maps, the shoreline of the Wolf River varies over time and it appears that fill materials may have been used on site.

According to notes in the WDNR file dated January 1992, the site was owned by Don Falk prior to the Radtke family [Ref. 2]. The site was utilized as a gasoline station until the early 1950s, when the pumps were removed from the site. Reportedly, the tanks were removed at the same time. The notes indicated that the pumps were located to the north of the building (currently road and sidewalk area) and the tanks were located to the west of the building. The notes also indicate that no tanks were located at the site at the time of the visit.

Based on a limited site investigation conducted by Badger Laboratories & Engineers Co., Inc. (Badger) in December 1991, four test pits were excavated on site to depths ranging from 5.5 to 6.5 feet bgs [Ref. 3]. Samples from the four test pits were submitted for GRO analysis. Additionally, it appears that a work plan was received by the WDNR in 1992; however, no results from the activities proposed in the work plan were available in the WDNR files during the time of file review by Himalayan. The activity was closed by the WDNR in 1994.

Soil Impacts

Based on the laboratory analytical results of soils samples from the four test pits, no GRO was noted in Test Pits #1 and #2. GRO (8 to 237 mg/kg) was detected in Test Pit #3 and Test Pit

#4. Concentration of GRO detected in Test Pit #3, which was located within 10 feet of the existing R/W of Main Street, is above the NR 720 RCL (see Figure 12.1).

Based on the review of WDNR records and project design plans, it appears that the location of former tanks and pumps is within the areas of proposed R/W acquisition and construction anticipated at this site (see Figure 12.1).

Groundwater Impacts

No groundwater information was available in the WDNR file.

Construction/Real Estate Requirements

Based on the proposed design plans, the maximum depths of excavation at and/or adjacent to the site are anticipated to be about 4 feet for MSE Walls, 15 feet bgs for roadway construction, 8 feet bgs for water / sewer, and about 5 feet bgs for lighting / signal bases (see Table 2 in the main report).

Up to 80 feet of R/W (strip) acquisition is anticipated at this site, which includes relocation of the existing building.

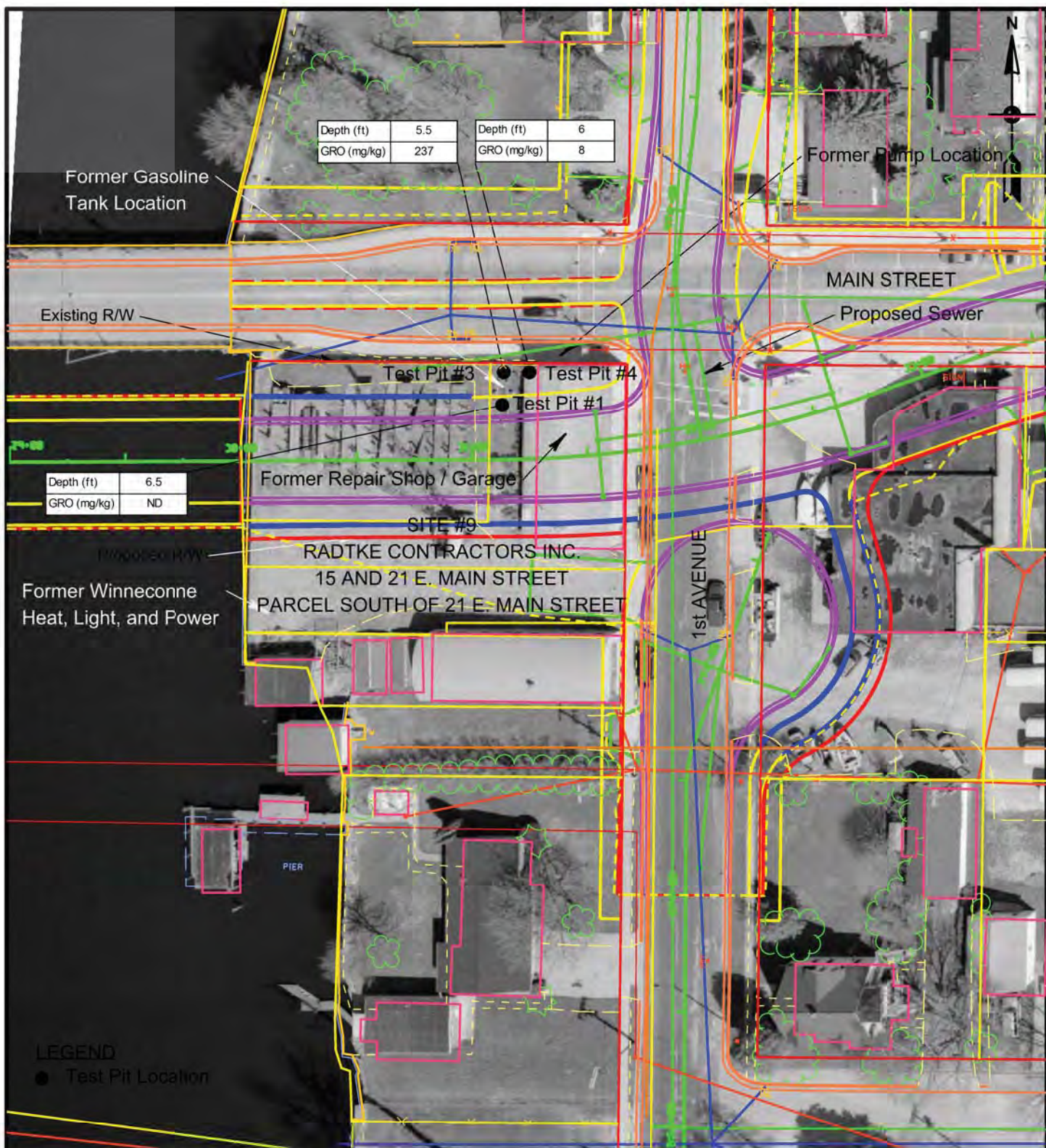
Recommendations

Considering the presence of residual contamination and location of former tanks and pumps potentially within the areas of R/W acquisition or construction proposed, it is likely that the site could pose a hazardous materials threat to the proposed improvements. Therefore, further investigation is recommended for the site.

Refer to the attached Hazardous Materials Assessment Site Summary, and site-specific figure (Figure 12.1) for more detailed information on the site including the former or current buildings, existing and proposed R/Ws, and proposed construction.

References

1. Winnebago County Wings website: <http://wcgis.co.winnebago.wi.us/cgi-bin/wings/wingsndx.cgi>
2. Handwritten notes by Mary Robl, January 29, 1992.
3. Summary of Work Performed at 21 E. Main Street, Winneconne (December 1991). Badger Laboratories & Engineers Co., Inc.



Source: Base map provided by EMCS, Inc.
Aerial provided by CH2M Hill

Scale: 0 30 60

Figure 12.1 SOIL QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066

Project ID: 1030-20-00
STH 116 (2nd Street - 2nd Avenue)
Winneconne, Winnebago County, WI



Site # 9 Radtke Contractors, Inc., 15 and 21 E. Main Street, View south from north side of Main Street



Site # 9 Radtke Contractors, Inc., 15 and 21 E. Main Street, View west from west side of 1st Avenue

Donald Falk Site 71-01089

1/29/92

21 E Main St.

Winneconne

Mary Robl

Met with:

Jessie Rose - US Oil

Derek Johnson - Miller Eng.

Don Falk - property owner

Jerry Christensen - Bob Radtke Contractors

Jessie Rose was hired by Bob Radtke to test the property for any C.V. Bob Radtke is the present 90-day owner and potential buyer. Of 4 soil borings 1 showed 6 ppm another showed 237 ppm GRO.

- HISTORY -

21 E Main St ^{has been} ~~was~~ owned by the Falks since ? . It was a gas station til the early 50's when they moved the business. The pumps were removed in the early 50's. Supposedly, the tanks were removed at this time too. The pumps were located at the front (N) of the bldg. - now into Main St. The tanks were located along ~~side~~ the W. side of the bldg.



~~then~~ The business was moved to the lot directly E and upslope from the Don Falk property. This station closed in the 70's at which time the ⁽³⁾ tanks and the pumps were removed. Fred Allees is the present property owner.

Jessie wanted to discuss options available given the limited space. ~~The~~ The only land space accessible is the area where the tanks layed just W of the bldg and E of the river. I suggested investigating this dirt area a bit more with borings or test pits to try to determine extent of C'N to the E. ~~the~~

We discussed the tanks further E ~~as~~ belonging to the adjacent property owner and who would pay for testing done off-site if ~~it~~ ~~it~~ it deemed necessary. I said initially Mr Falk would until results showed ~~that~~ the Allees property was a source of C'N.)

At present: - NO Tanks ^{probably?} ~~exist~~ ^{borings} - 1 boring at NW corner of Falk Bldg shows 237 ppm. Two samples down gradient show ND, one shows 6 ppm. The pumps were up gradient from the tanks. Upgradient consists of State Rd, City Sidewalk + Falk Bldg.

older gentleman recalled the excav. borings showed none at N half of area... but?



BADGER LABORATORIES & ENGINEERING CO. INC.

1110 S. ONEIDA STREET • APPLETON, WISCONSIN 54915 • EST. 1966
(414) 739-9213 • FAX (414) 739-5399 • 1-800-776-7196

SUMMARY OF WORK PERFORMED AT 21 E. MAIN ST. WINNECONNE, WI

Prepared by:

Badger Laboratories & Engineering
1110 S. Oneida St.
Appleton, WI 54915

Todd Degeneffe
Technical Representative

CHEMISTS
ENGINEERS

BADGER LABORATORIES & ENGINEERING CO. INC.

1110 S. ONEIDA STREET • APPLETON, WISCONSIN 54915 • EST. 1966
(414) 739-9213 • FAX (414) 739-5399 • 1-800-776-7196

December 18, 1991

Mr. Jesse Rose
U.S. Petroleum Equipment Co.
425 S. Washington St
P.O. Box 86
Combined Locks, WI 54113

Dear Mr. Rose:

Upon your request, Badger Laboratories & Engineering was contracted to collect samples from a site that had previously contained underground storage tanks. The storage tanks had previously been removed, but at the time of the removal a closure assessment was not required. Thus there is no documentation that the site is free of contamination. The site is located at 21 E. Main Street, Winneconne, Wisconsin. The owner currently has the site for sale. This is the reason for the investigation.

On December 6, 1991 Radke const. excavated four test pits around the abandoned tank site. Badger Laboratories & Engineering collected soil samples from each test pit. The samples were field screened and analyzed in the laboratory (See Plate 2 for field screening results and Table A for laboratory results).

Samples retrieved from test pits #3 and #4 showed signs of petroleum contamination (See Plate 1 for sampling locations). Test pit #3 contained 120 units as benzene when analyzed with the field meter. Test pit #4 contained only 5 units as benzene when analyzed with the field meter. Test pit #4 was located only 5 feet to the west of test pit #3, yet the contamination levels had decreased significantly.

Badger Laboratories & Engineering believes that the contamination is localized, and that overexcavating could remove all of the contaminated soil. Before the site is overexcavated test pits should be performed to the north of test pit #3 to find the extent of the contamination on the north side. ← that's sidewalk + ROAD!

The Wisconsin Department of Natural Resources requires the owner of a contaminated site to report it immediately. The person to contact at the DNR is Janice DeBrock. Mrs. DeBrock can be reached at 492-5859.

Call if there are any questions on this project. Thanks again for using our services.

Very truly yours,

Todd Degeneffe
Todd Degeneffe
Technical Representative

WI DNR Certified Lab #445023150
WI Reg. Engineers (Corp.) #CE00601
WI Div. Health Cert. Lab #205, Bacteria water/milk
USDA Certified Lab #5585, Various tests for (Meat & Poultry) foods

Members
WI Environmental Labs; Am. Chemical Soc.;
Water Pollution Control Fed.; T.A.P.P.I.;
WI Food Processors Assn.; Wisc. Paper Council

BADGER LABORATORIES & ENGINEERING'S SAMPLING PROCEDURES

A. Field Procedures

Soil samples are taken with a clean hand trowel from each station. The soil samples are collected by first scraping the soil surface to ensure there is no contamination from the excavating equipment.

Each sample is sample was placed in a four ounce glass jar with a teflon-lined lid and immediately placed on ice. The teflon-lined container was returned to U. S. Petroleum Equipment and analyzed.

B. Instrument Procedures

Quart glass jars are filled approximately half full with soil sample and then covered with aluminum foil. Then the sample is agitated to break up the soil clumps. The sample is then allowed to equilibrate prior to analysis.

Minimum Sample Headspace Equilibration Time

<u>Ambient Outside Air Temperature</u> <u>At Time of Sample Collection</u>	<u>Minimum Amount of Time Sample Must</u> <u>Equilibrate at 70⁰ F or Greater</u>
< 40 ⁰ F	40 min.
41 - 55 ⁰ F	20 min.
56 - 69 ⁰ F	10 min.
> 70 ⁰ F	5 min.

* Headspace samples are warmed out of direct sunlight by bringing them into a warm environment.

After equilibration the H-NU probe was inserted through a single hole in the foil seal. The benzene concentration was measured at one-half the distance between the foil seal and the sample surface.

C. Instrument Specifications

1. Instrument H-NU systems model PI-101
2. Date of last factory calibration . . . February 12, 1991
3. Field calibration gas used
and concentration Isobutylene/100 ppm
5. Lamp energy in electrovolts (for PID's) 11.7 ev

E. Laboratory Testing Procedures

The soil samples were returned to U.S. Petroleum Equipment and tested for gasoline range organics. This was done with a gas chromatograph-FID according to the California TPH Method.

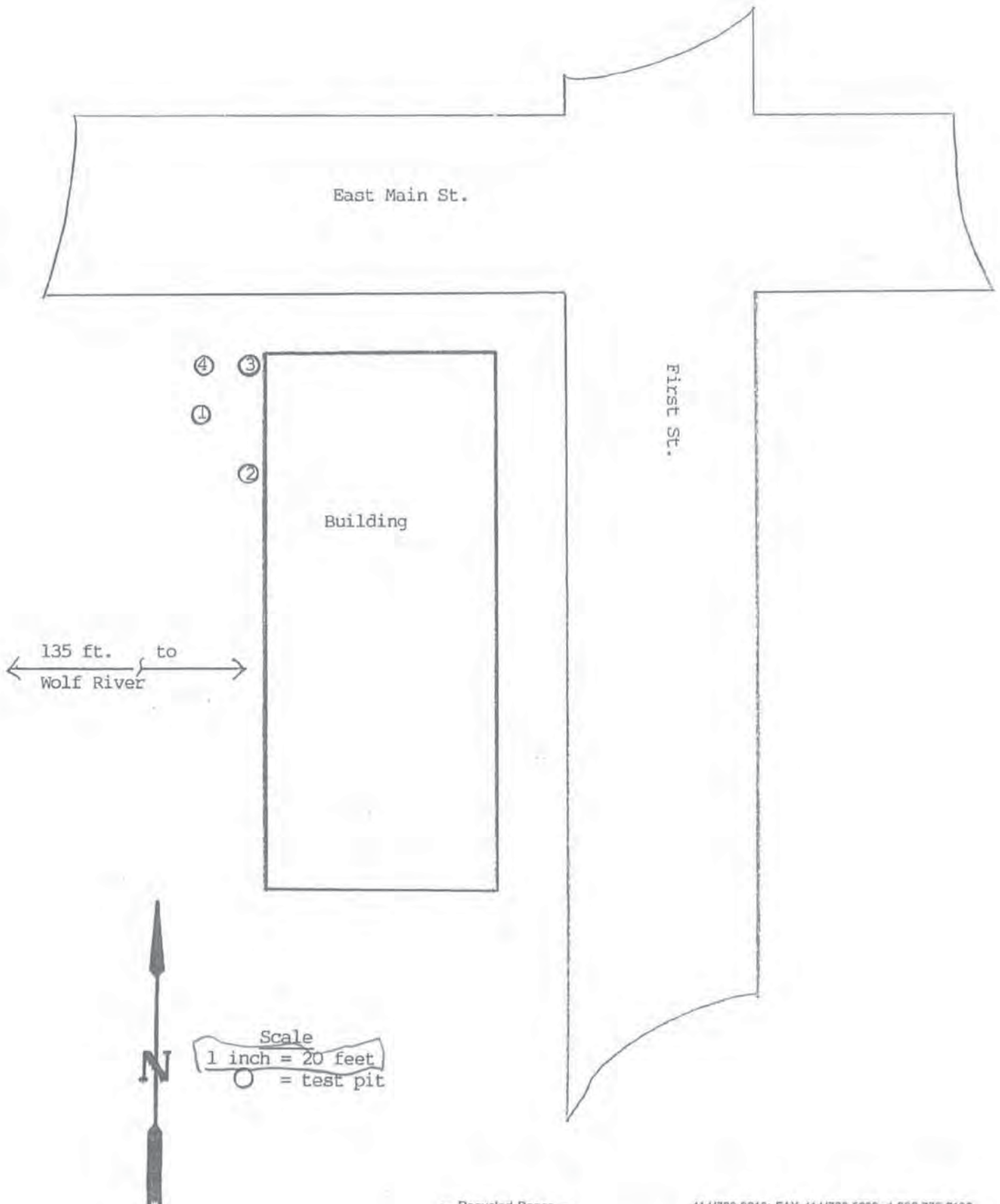
F. Personnel Qualifications

Todd Degeneffe, who is certified to supervise hazardous waste sites and underground storage tanks according to EPA 29 CFR 1910.120, performed the on-site sampling. Mr. Klaeser has completed hazardous waste site worker training at Lakeshore Technical College, Cleveland, Wisconsin, and holds an associate degree in natural resources from Fox Valley Technical College in Appleton.

Plate 1

BADGER LABS & ENGINEERING Est. 1966
1110 S. Oneida St., Appleton, WI 54915

Proj. No.



BADGER LABORATORIES & ENGINEERING

FIELD SCREENING RESULTS

Project U.S. OIL - RADKE CONST
21 E MAIN, WINNECONNE

Project No. _____

[illegible]

ND = NOT DETECTED

Instrument H-NU PI-101

Conditions _____
(ex. sunny, cloudy, humidity, temp.)

TECHNICIAN Todd D. Glineff

DATE 12/6/91



Analytical Laboratory

425 S. Washington St. Combined Locks, WI 54113
Phone 414-735-8298

WI DNR Certified Lab #445027660

REPORT TO: JESSE ROSE
941-200 TP1 1 1556692 02012
MAINTENANCE PURCHASES

COMBINED LOCKS WI 54113

REPORT DATE 12/19/91
SAMPLE DATE 12/06/91
SAMPLE ID TEST PIT #1
SAMPLE DESC RADTKE EXCAV.

TEST DESCRIPTION

DATE SAMPLE RECEIVED
T.P.H. WDNR DRAFT
ANALYZED BY
DATE ANALYZED
GAS (G.R.O.) MG/KG
MDL MG/KG

RESULTS

12/9/91
M. RICKER
12/15/91
ND 5

ND = NOT DETECTED

COMMENTS:

PROJECT #A.



Analytical Laboratory

425 S. Washington St. Combined Locks, WI 54113
Phone 414-735-8298

WI DNR Certified Lab #445027660

REPORT TO: JESSE ROSE
941-200 TP2 1 1556693 02012
MAINTENANCE PURCHASES

REPORT DATE 12/19/91
SAMPLE DATE 12/06/91
SAMPLE ID TEST PIT #2
SAMPLE DESC RADTKE EXCAV.

COMBINED LOCKS WI 54113

TEST DESCRIPTION

DATE SAMPLE RECEIVED
T.P.H. WDNR DRAFT
ANALYZED BY
DATE ANALYZED
GAS (G.R.O.) MG/KG
MDL MG/KG

RESULTS

12/9/91
M. RICKER
12/15/91
ND

5

ND = NOT DETECTED

COMMENTS:

PROJECT #A.



Analytical Laboratory

425 S. Washington St. Combined Locks, WI 54113
Phone 414-735-8298

WI DNR Certified Lab #445027660

REPORT TO: JESSE ROSE
941-200 TP3 1 1556694 02012
MAINTENANCE PURCHASES

REPORT DATE 12/19/91
SAMPLE DATE 12/06/91
SAMPLE ID TEST PIT #3
SAMPLE DESC RADTKE EXCAV.

COMBINED LOCKS WI 54113

TEST DESCRIPTION

RESULTS

DATE SAMPLE RECEIVED
T.P.H. WDNR DRAFT
ANALYZED BY
DATE ANALYZED
GAS (G.R.O.) MG/KG
MDL MG/KG

12/9/91
M. RICKER
12/15/91
237
5

ND = NOT DETECTED

COMMENTS:

PROJECT #A.



Analytical Laboratory

425 S. Washington St. Combined Locks, WI 54113
Phone 414-735-8298

WI DNR Certified Lab #445027660

REPORT TO: JESSE ROSE
941-200 TP4 1 1556695 02012
MAINTENANCE PURCHASES

COMBINED LOCKS WI 54113

REPORT DATE 12/19/91
SAMPLE DATE 12/06/91
SAMPLE ID TEST PIT #4
SAMPLE DESC RADTKE EXCAV.

TEST DESCRIPTION

DATE SAMPLE RECEIVED
T.P.H. WDNR DRA5T
ANALYZED BY
DATE ANALYZED
GAS (G.R.O.) MG/KG
MDL MG/KG

RESULTS

12/9/91
M. RICKER
12/15/91
8 5

ND = NOT DETECTED

COMMENTS:

PROJECT #A.

Chain of Custody Record

[illegible]

C-LINE #50522
35MM PRINT



MILLER ENGINEERS

March 5, 1992

5308 South Twelfth Street
Sheboygan, Wisconsin 53081
414-458-8184
Fax 414-458-0388

RECEIVED MAR 9 1992
KMS-DSH
P11739E1

Mr. Jesse Rose
U. S. Petroleum Equipment
558 Carter Court
Kimberly, WI 54136

Subject: **Proposal/Agreement for Environmental Engineering Services**
Don Falk Property--21 East Main Street
Winneconne, Wisconsin

Dear Mr. Rose:

This **Proposal/Agreement** describes the services you have requested that Miller Engineers provide during a test pit investigation at the subject site.

Background Information

Subsurface petroleum contamination was encountered on December 6, 1991, during the advancement of four backhoe test pits at the subject site. The site previously contained underground storage tanks. Badger Laboratories and Engineering (Appleton) collected a soil sample from each test pit. No detectable levels of Gasoline Range Organics (GRO) were detected in Test Pit 1. A GRO concentration of 8 parts per million (ppm) was detected from 4 to 6 feet in Test Pit 4. Soil samples from Test Pits 2 and 3 were not analytically tested. The Wisconsin Department of Natural Resources (WDNR) has required that a remedial investigation be conducted.

It is our understanding that Radtke Construction (Winneconne) wishes to acquire this property and has decided to conduct a preliminary remedial investigation. The investigation will consist of the excavation of backhoe test pits to confirm the presence of subsurface contamination in the vicinity of the previously removed tanks (see *Proposed Test Pit Location Plan*).

Scope of Services

Miller Engineers proposes to observe soil conditions during the excavation of backhoe pits at the subject site. Soil samples will be collected and analyzed for the presence of GRO, Petroleum Volatile Organic Compounds (PVOCs), and Polynuclear Aromatic Hydrocarbons (PAH). Documentation shall include a discussion of the study area, soil and ground water conditions, and our conclusions regarding subsurface contamination. We will provide the following services to meet these requirements:

1. **Coordinate engineering services.**
2. **Observe and monitor soil** (one day) during backhoe pit (three to five) excavations, to determine if soils are contaminated. Monitoring will be performed using a portable organic vapor detector. Representative soil samples will be retained for laboratory testing.
3. **Analytic testing** of two soil samples from each backhoe pit for GRO and PVOCs, and one sample for PAH. **GRO, VOC, and PAH analysis will be performed on one to two ground water samples, if ground water is encountered.**
4. **A summary report** will be provided that will document the soil and ground water conditions, and our conclusions regarding soil or ground water contamination, if present.

Fees

Fees for these services will be charged on a time-and-expense basis according to the attached *Professional Services Fee Schedule*. We estimate that the cost of our service will range from **\$3,300 to \$4,200, assuming one day of site time**. Allow approximately \$700/day for each additional day of required monitoring. The components of our estimate are summarized below:

1. **Coordination of engineering services
and site reconnaissance/client meeting** \$1,000 to \$1,200
2. **Mobilization/demobilization, field
observation, and soil monitoring**
during excavation of backhoe pits (1 day) . . . \$ 800 to \$1,000
3. **Analytic testing** of 2 soil samples from
each backhoe pit for GRO and PVOC. One
soil sample will also be analyzed for PAH,
and possibly 1 to 2 ground water samples
for VOC, GRO, and PAH *

4. **Issue a Summary Report**, including a description of soil and ground water conditions encountered, analytic test results, and our conclusions regarding soil and ground water contamination, if present \$1,500 to \$2,000

Estimated Range of Fees . . . \$3,300 to \$4,200

* Analytic testing to be performed by U. S. Oil.

Responsibilities of Client

1. **Decide how contaminated material will be disposed of or treated.** This is not the responsibility of Miller Engineers. However, Miller Engineers can provide information on treatment options and qualified transporters.
2. **Arrange for transportation of contaminated material and off-site disposal.** Waste analysis and preparation of permits does not constitute direction or decision by Miller Engineers regarding material disposal. By statute, responsibility for this decision resides with the generator and shall not be implied to be transferred to Miller Engineers because of the services provided.
3. **Coordinate and communicate with landowners**, and provide access permission for the work.
4. **Establish and maintain site safety** during excavation, as well as underground utility clearances.

Services Not Included

1. **Underground utility clearances or any permits for excavating or hauling and disposal of any waste materials.**
2. **Coordination, analytic testing, and permits for disposal of contaminated soil** (may be provided by amendment to this agreement, if needed).
3. **Remedial investigation, planning, or design** (not anticipated at this time).

4. Any services or testing other than that described in the Scope of Services section of this proposal.

Conditions

If conditions different than those described above are encountered which we feel will require work beyond the scope described above, we propose to perform such work at additional cost. If this situation arises, we will discuss the additional work with you and receive your approval before proceeding.

The estimated fee is based on performance of the work under OSHA/EPA health and safety protocol level D. If our monitoring of conditions at the site indicates the need for a higher level of safety protocol, field work will cease in order to re-evaluate what procedures are necessary to protect worker health. In this case, the project scope and fees will need to be renegotiated.

The attached nine pages titled *General Conditions for Agreement between Environmental/Geotechnical Engineer and Client*, dated March 5, 1992, are hereby made a part of this Agreement.

Performance Schedule

We anticipate being able to meet your contractor's schedule for the field work if we are given one week notice. Results of analytic tests on soil can be provided when available, which is typically two weeks after completion of the field work. The summary report will be submitted approximately 60 days after receipt of the analytic test results.

Acceptance

Please indicate your acceptance of this **Proposal/Agreement**, attached nine pages of *General Conditions*, and *Fee Schedule*, by endorsing the enclosed copy and returning it to us. Retain the original for your records.

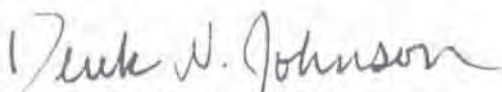
This proposal/contract offer may be withdrawn, at the option of Miller Engineers, if it has not been accepted within 45 days of its date of issue.

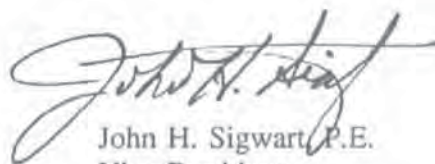
Mr. Jesse Rose
March 5, 1992
Page 5

Miller Engineers appreciates the opportunity to assist U. S. Petroleum Equipment on this project. If you have any questions or comments, your call or letter will receive our prompt response.

Sincerely,

J. ROGER MILLER & ASSOCIATES, INC.
d/b/a MILLER ENGINEERS


Derek W. Johnson, E.I.T.
Civil Engineer


John H. Sigwart, P.E.
Vice President

DWJ/sj

Enclosures: Copy of Letter
Proposed Test Pit Location Plan
General Conditions for Agreement Between Environmental/Geotechnical
Engineer and Client
Professional Services Fee Schedule
Owner/Operator Questionnaire

cc: Ms. Kathy Sylvester, WDNR--Oshkosh Area
Mr. Bruce Uitenbrock, U. S. Petroleum Equipment
Ms. Margie Young, U. S. Oil Company, Inc.

ACCEPTED

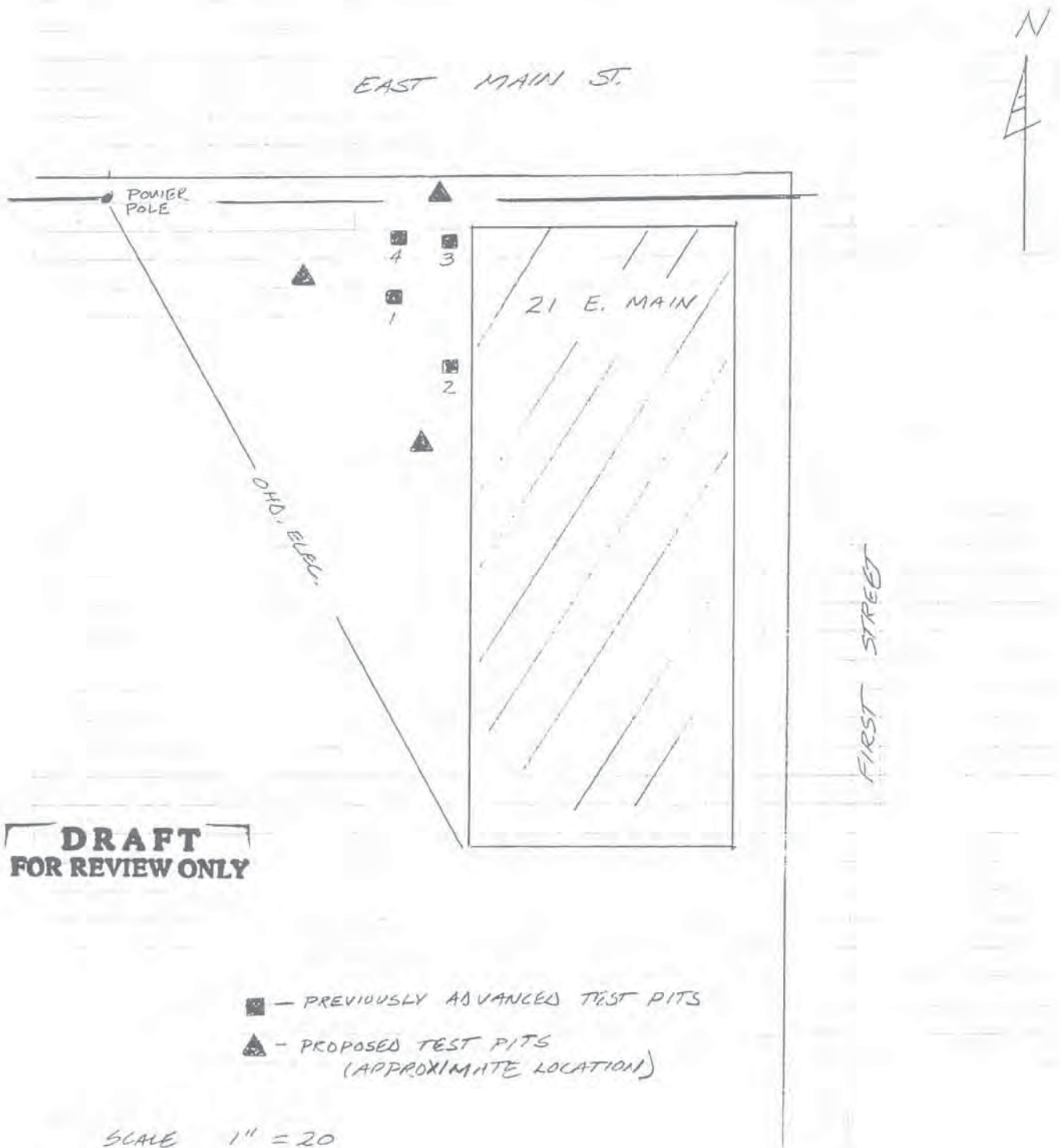
By: _____

Date: _____

Copyright © 1992 by J. Roger Miller and Associates, Inc. d/b/a MILLER ENGINEERS. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted except for purposes of review or scholarly research, without the express written consent of the copyrighter.

USPE39E1.EP

SUBJECT PROPOSED TEST PIT LOCATION PLAN JOB NO. P11739E1 PAGE 1/1
CLIENT USPE DATE 3/4/92 BY DW
PROJECT RATKE CONST. - WINNECONNE CHECKED BY



**MILLER
ENGINEERS**

5308 South Twelfth Street
Sheboygan, Wisconsin 53081
414-458-6164
FAX 414-458-0369



George E. Meyer, Secretary
William R. Selbig, District Director

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Oshkosh Area Office
905 Bayshore Drive
Box 2566
Oshkosh, Wisconsin 54903
Telephone #: (414)424-3050
Telefax #: (414)424-4404

June 10, 1994

Mr. Bob Radtke
6408 STH 110
Winneconne, WI 54986

SUBJECT: Closure of WDNR LUST Case #71-01089
Falk Property, 21 E. Main Street, Winneconne

Dear Mr. Radtke:

The Department of Natural Resources has reviewed the case file for the above-mentioned site. In summary, a property assessment was performed by Badger Labs in December 1991 and the report indicated low to moderate levels of petroleum contamination in the soils around an abandoned tank area.

Based on the information available to the Department for the above property, we are not requiring any further investigation or other action at this time. However, if additional information in the future indicates that further investigation or cleanup is warranted, the Department will require that appropriate action be taken at that time.

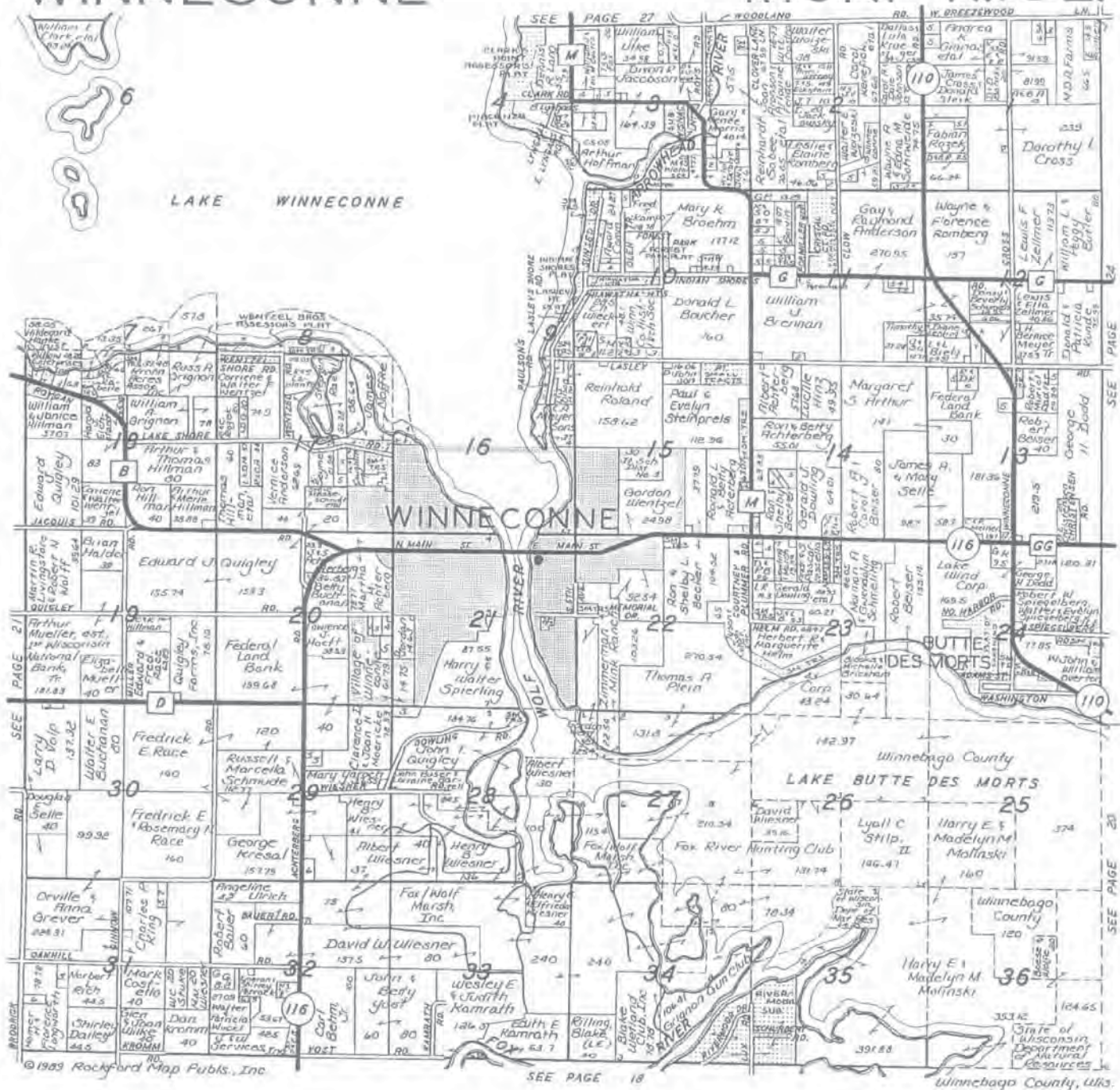
You should note that this letter does not constitute Department "certification" under s. 144.765 (2) (a) 3, Stats., as created by 1993 Wisconsin Act 453 (May 12, 1994). Persons who meet the definition of "purchaser" in s. 144.765 (1) (c) must receive Department pre-approval prior to conducting a site investigation in order to be eligible for the liability exemption under s. 144.765, Stats.

The Department appreciates the actions you have undertaken to protect the environment. I apologize that the large number of leaking tank cases prevented us from providing the closure review sooner. If you have any questions, please feel free to contact me in my office at (414)424-0399.

Sincerely,

Kathleen M. Sylvester
Hydrogeologist
Leaking Underground Storage Tank Program

cc: Case File - OSH
Gerald Schrader, WDOT-WINNEBAGO COUNTY, 944 Vander Perren Way, PO Box 28080,
Green Bay, WI 54304



Sayler
survey, inc.

land surveyors

SURVEYING THE AREA SINCE 1947

CERTIFIED

Surveys • Maps • Plats • Farm Surveys • Subdivisions
As Built Plans

(414) 582-4234

139A West Main - Box 252 - Winneconne, Wisconsin 54986

BOB'S
PARK & SAVE

915 E. Main, WINNECONNE

582-4362



Carroll D. Beaudry
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

1125 N. Military Avenue
P.O. Box 10448
Green Bay, WI 54307-0448
TELEFAX 414-492-6913

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

January 13, 1992

Mr. Bob Radtke
Bob Radtke, Inc.
6408 State Highway 110
Winneconne, WI 54986

COPY

RE: Leaking Underground Storage Tank System
Donald Falk property, 21 E. Main Street, Winneconne
LMD Unique ID #71-01089

Dear Mr. Radtke:

The Wisconsin Department of Natural Resources (WDNR) was notified on January 3, 1992, that petroleum contamination was discovered at the above-referenced location. Based on the site-specific information provided, this case has been assigned to the **LOW PRIORITY** rank group. The purpose of this letter is to inform you of your legal responsibilities to address this situation.

Releases from underground storage tanks regulated under Subtitle I of the Resource Conservation and Recovery Act require compliance with the provisions of 40 CFR, Parts 280 and 281. The Environmental Protection Agency (EPA) has the authority to take enforcement action at any time, but will generally not take action against parties cooperating with the state. The WDNR proceeds in LUST cases under the authority of s. 144.76, Wisconsin Statutes, commonly referred to as Wisconsin's Hazardous Substance Spill Law. The definition of "hazardous substance" as found in s. 144.01(4m), Stats., includes petroleum products.

Wisconsin Statute 144.76(2a) states: "A person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance shall notify the Department immediately of any discharge not exempt under sub. (9)."

Wisconsin Statute 144.76(3) states: "A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state."

Because you possess or control a hazardous substance that has been released to the environment, the Department identifies you as the party responsible for taking the actions necessary to restore the environment. You are required to:

1. Immediately notify your WDNR project manager, should emergency conditions involving explosive vapors and/or well contamination develop.
2. Conduct an investigation to determine the extent of soil and groundwater contamination.
3. Remediate all of the environmental impacts caused by this situation.
4. Properly dispose of all petroleum contaminants.

The Department suggests that you have a qualified environmental engineer or hydrogeologist direct the remedial investigation, assess the environmental impact, and coordinate the implementation of a cleanup program (a list of consultants is enclosed for your information). Within 90 days, your consultant should submit a work plan to conduct a remedial investigation. If groundwater contamination is suspected at the site, all wells within 1200 feet should be identified on a site map and those closest to the site should be sampled.

Final documentation of the investigation and cleanup should be prepared according to the guidance enclosed and sent to your WDNR project manager on completion of compliance with all applicable federal, state, and local laws and regulations. Remedial actions must adequately clean up contaminated soil and/or groundwater to current WDNR guidelines and/or standards. All product, soils, wastewater, and sludge must be disposed of in compliance with all applicable federal, state, and local laws and regulations. All groundwater remediation projects which discharge to surface or groundwater (including all discharges to storm sewers) must be covered by a WPDES Discharge Permit. The only discharges not requiring a permit are those to a sanitary sewer; however, in those cases, the treatment facility receiving the discharge and the owner of the sewer system must be contacted for approval. An application must be submitted as early as possible to allow time for needed monitoring or additional data collection prior to discharge. The permit will contain discharge limits for pollutants of concern, along with sampling frequency and test methods.

Before any contaminated soil can be treated or disposed, an "Application to Treat or Dispose of Petroleum Contaminated Soil" must be completed and approved by the DNR; however, prior approval by the DNR is not necessary if the soil is to be buried at a landfill. Until the contaminated soils can be treated or disposed of, they should be stored on an impermeable surface, bermed to prevent runoff and runoff, and covered with an impermeable cover material such as plastic.

Because the Department is experiencing a backlog of leaking underground storage tank cases of emergency status, and your case is not currently ranked as an emergency, your submittals will be reviewed as time permits. Investigation and cleanup should not, however, be delayed pending WDNR review. You must proceed to determine the extent of soil and groundwater contamination, and to remediate the site in accordance with state groundwater standards as specified in Chapter NR 140, Wisconsin Administrative Code.

You are encouraged to contact the Department of Industry, Labor & Human Relations (DILHR), the state agency that administers the Petroleum Environmental Cleanup Fund (PECFA). This fund may reimburse you for eligible costs associated with the remedial investigation and cleanup. DILHR should be contacted at (608) 267-4545 to obtain current information regarding the PECFA program.

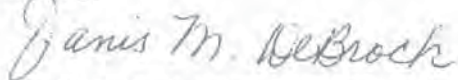
Failure to comply with these requirements could subject you to further enforcement action. Your cooperation in this matter will be appreciated. Please be aware that your ability to use PECFA funds is dependent on your cooperation in adequately addressing this problem.

CORRESPONDENCE AND REPORTS SHOULD BE DIRECTED TO YOUR WDNR PROJECT MANAGER AT THE FOLLOWING ADDRESS:

Kathleen Sylvester, 905 Bayshore Drive, Box 2565, Oshkosh, WI 54903
Telephone: 414-424-0399

All correspondence and reports should be identified with the assigned LMD unique ID number.

Sincerely,



Janis M. DeBrock, Program Assistant
Leaking Underground Storage Tank Unit

Enc: PECFA Fund Overview
Petroleum Environmental Cleanup Fund
Solid Waste Management Practices for Petroleum Contaminated Soils

cc: DILHR, 2331 San Luis Place, Green Bay, WI 54304
Jesse Rose, U.S. Oil, 558 Carter Court, Kimberly, WI 54136
Donald Falk, 129 N. 6th Avenue, Winneconne, WI 54986

II. **GROUNDWATER:** Groundwater encountered: Yes _____ No X Depth to Groundwater: _____

Groundwater impacted: Yes _____ No _____ Extent Defined: Yes _____ No _____ N/A _____

Number of: Lab Analyses _____ Field Analyses _____ No Data _____

Methodology and/or detection devices: _____

GROUNDWATER MONITORING:

Excavation water samples: _____ # Recovery Sumps: _____ Number of Sample Rounds _____
 # NR 141 Monitoring Wells: _____ # NR 141 Temporary Wells: _____
 # Prv. Water Supply Wells: _____ # Municipal Wells: _____

PRE-REMEDIAL CONCENTRATION

POST-REMEDIAL CONCENTRATION

Location	Contaminant	Date	Date	Date	Contaminant	Date	Date	Date	Applicable Std

REMEDIAL ACTION TAKEN:

CLOSURE JUSTIFICATION:

CASE SUMMARY:

IF CONTAM IS FROM PUMPS - They were in ROADWAY. ^{CURRENT}
 Frankly, the documented contam is minimal & appears limited
 in extent. SI was performed in 12/91 but somehow
 review was escaped til now! MINIMAL RISK -
 Recommend closure.

Groundwater Remedial Action Completed: Yes _____ No _____ N/A _____ Has site been remediated to current standards? Yes _____ No _____

This recommendation for case closure is based on all the available data as of this date 5/31/94 and submitted by

X Sylvestre of WDNR
 (Name) (FIRM OR AGENCY)

COMMITTEE RECOMMENDATION:

REMEDIAL ACTION COMPLETED: YES X NO _____

FURTHER WORK NEEDED:

CASE # 71-01089

CASE SUMMARY AND CLOSEOUT

PROJECT MANAGER: SYLVESTER

FIRM OR AGENCY: _____

DATE: 5/31/94NAME OF SITE: DEF FALK, DONALDLOCATION: 21 E. MAIN, WINNECONNE COUNTY: WINNEBAGOTYPE OF DISCHARGE: ERP _____ LUST X Other _____

CONTAMINATION TYPE: (list all compounds) _____

CONTAMINATION PRESENT IN: Soil X Groundwater _____ Other _____

I. SOIL:

Extent Defined: Yes _____ No _____ N/A _____

Number of: Lab Analyses 4 Field Analyses 4 No Data _____Methodology and/or Detection Devices: PID + GROTotal Number of Sample Points: 4

PRE-REMEDIATION CONCENTRATION

POST-REMEDIATION CONCENTRATION

Location	Contaminant	Date <u>12/91</u>	Date	Contaminant	Date	Date	Date	Applicable Std
TP 3	GRO	237						
TP 4	GRO	8						
TP 1	GRO	ND						
TP 2	GRO	ND						

REMEDIAL ACTION TAKEN

NOT NECESSARY

JUSTIFICATION FOR CLOSE OUT:

Pumps removed in early 1950's; tanks supposedly removed also. S.I. performed for property sale. Test pits were located in Tank area, pumps were located in what is now ROAD + SIDEWALK. River is ~125' to west of building.

Soil Remedial Action Completed: Yes _____ No X

This recommendation for case closure is based on all the available data as of this date _____ and

submitted by _____

(Name)

(Firm or Agency)

PRELIM. REVIEW: NAI

REMEDIAL ACTION COMPLETED

CASE CLOSEOUT

DATE: 6-2-94ROUTE TO: R. C. F. H. H.☒ URBEN R. C. F. H. H.☒ ROSSBERG R. C. F. H. H.☒ STOLL R. C. F. H. H.

CHEMISTS
ENGINEERS

BADGER LABORATORIES & ENGINEERING CO. INC.

1110 S. ONEIDA STREET • APPLETON, WISCONSIN 54915 • EST. 1966
(414) 739-9213 • FAX (414) 739-5399 • 1-800-776-7196

December 18, 1991

Mr. Jesse Rose
U.S. Petroleum Equipment Co.
425 S. Washington St
P.O. Box 86
Combined Locks, WI 54113

Dear Mr. Rose:

Upon your request, Badger Laboratories & Engineering was contracted to collect samples from a site that had previously contained underground storage tanks. The storage tanks had previously been removed, but at the time of the removal a closure assessment was not required. Thus there is no documentation that the site is free of contamination. The site is located at 21 E. Main Street, Winneconne, Wisconsin. The owner currently has the site for sale. This is the reason for the investigation.

On December 6, 1991 Radke const. excavated four test pits around the abandoned tank site. Badger Laboratories & Engineering collected soil samples from each test pit. The samples were field screened and analyzed in the laboratory (See Plate 2 for field screening results and Table A for laboratory results).

Samples retrieved from test pits #3 and #4 showed signs of petroleum contamination. (See Plate 1 for sampling locations). Test pit #3 contained 120 units as benzene when analyzed with the field meter. Test pit #4 contained only 5 units as benzene when analyzed with the field meter. Test pit #4 was located only 5 feet to the west of test pit #3, yet the contamination levels had decreased significantly.

Badger Laboratories & Engineering believes that the contamination is localized, and that overexcavating could remove all of the contaminated soil. Before the site is overexcavated test pits should be performed to the north of test pit #3 to find the extent of the contamination on the north side. ← that's sidewalk + ROAD!

The Wisconsin Department of Natural Resources requires the owner of a contaminated site to report it immediately. The person to contact at the DNR is Janice DeBrock. Mrs. DeBrock can be reached at 492-5859.

Call if there are any questions on this project. Thanks again for using our services.

Very truly yours,

Todd Degeneffe

Todd Degeneffe
Technical Representative

East Main St.

First St.

Building

135 ft. to
Wolf River



GRO (ppm)

Scale

1 inch = 20 feet

○ = test pit

BADGER LABORATORIES & ENGINEERING

FIELD SCREENING RESULTS

Project U.S. OIL - RAOKE CONST
21 E MAIN, WINNECONNE

Project No. _____

SAMPLE I.D.	DEPTH	UNITS AS BENZENE (ppm)	GRO
TEST PIT #1	6.5 FT	ND	ND
TEST PIT #2	6 FT	ND	ND
TEST PIT #3	5.5 FT	120	237
TEST PIT #4	6 FT	5	8

ND = NOT DETECTED

Instrument H-NU PI-101

Conditions _____
(ex. sunny, cloudy, humidity, temp.)

TECHNICIAN

Todd Degeneff

DATE

12/6/91

Site #11
A1 Auto Sales (105 E. Main Street)

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[BOTW Home](#) > [Basic Search](#) > [Search Results](#) > 02-71-562271 Activity Details

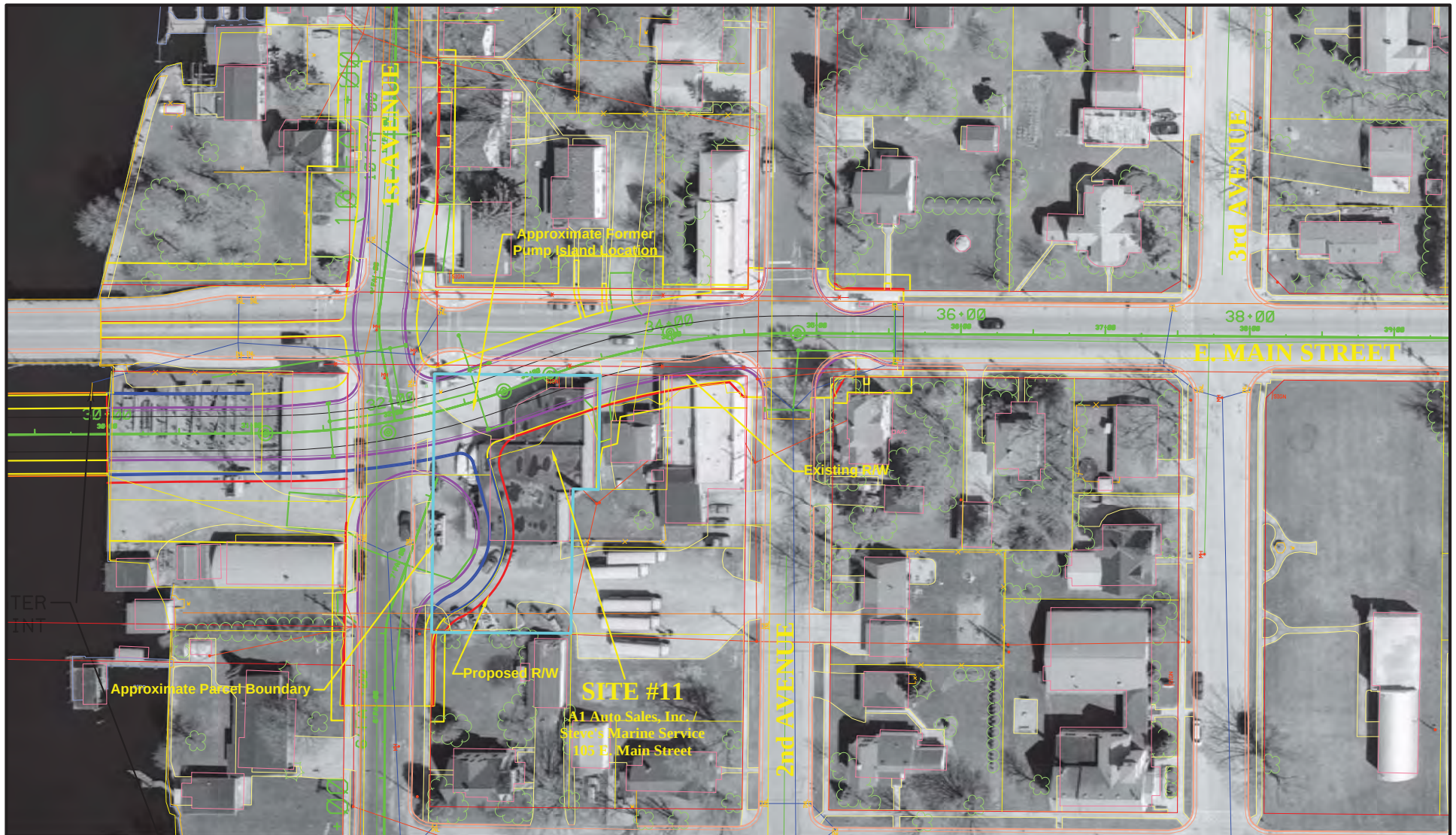
02-71-562271 105 E MAIN ST PROPERTY - WI DOT						
ERP - OPEN						
Location Name (Click Location Name to View Location Details)				County	WDNR Region	
105 E MAIN ST PROPERTY - WI DOT				WINNEBAGO	NORTHEAST	
Address				Municipality		
105 E MAIN ST				WINNECONNE		
Public Land Survey System			Latitude	Google Maps	RR Sites Map	
NE 1/4 of the NE 1/4 of Sec 21, T19N, R15E			44.110607	CLICK TO VIEW	CLICK TO VIEW	
Additional Location Description			Longitude	Facility ID	Size (Acres)	
NONE			-88.7075976	NONE	UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2014-06-27		2014-07-08	
Characteristics						
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? 
No	No	No	No	No	No	No
Actions						
Place Cursor Over Code to View Description						
Date	Code	Name	Comment			
2014-06-27	1	Notification	WI DOT PHASE 2 HAZARDOUS MATERIALS INVESTIGATION - FEBRUARY 2014			
2014-07-08	2	RP Letter Sent				
Impacts						
Type			Comment			
Groundwater Contamination			-			
Substances						
Substance			Type	Amount Released	Units	
Chlorinated Solvents			VOC			
Who						
Click name of Project Manager or File Contact to compose email						
Role	Name/Address					
Project Manager	ELIZABETH VICTOR 625 E COUNTY RD Y OSHKOSH, WI 54901					
Responsible Party	STEVEN BROOKS P O BOX 42 WINNECONNE, WI 54986					
Quick Response Codes 						
Scan the QR Code to transfer to your wireless device						

	 This Page URL	 Google Maps		

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.

The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621 

Release 2.16 | 08/05/2014 | [Release Notes](#)



Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill



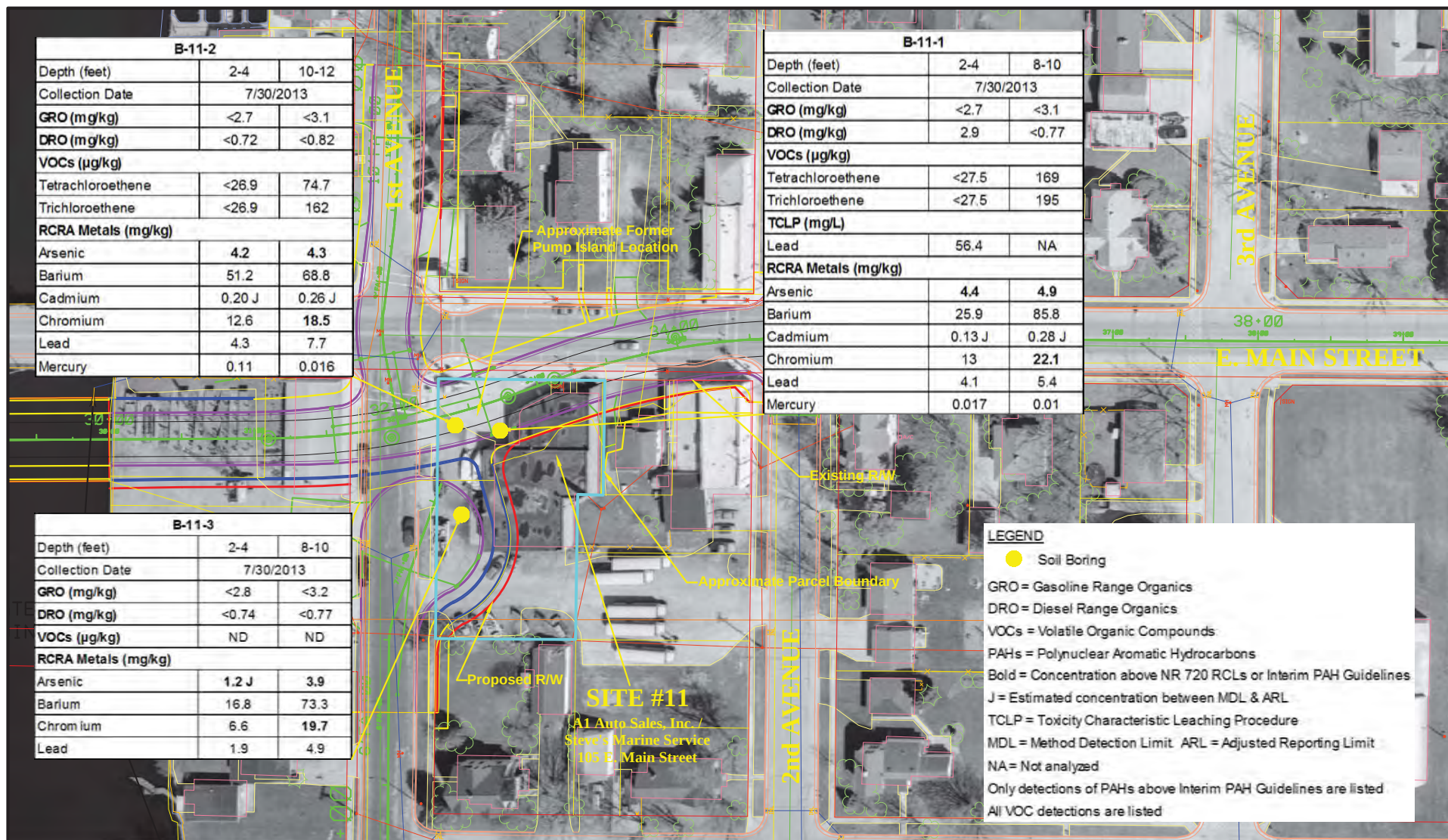
FIGURE 3.1: SITE OVERVIEW MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

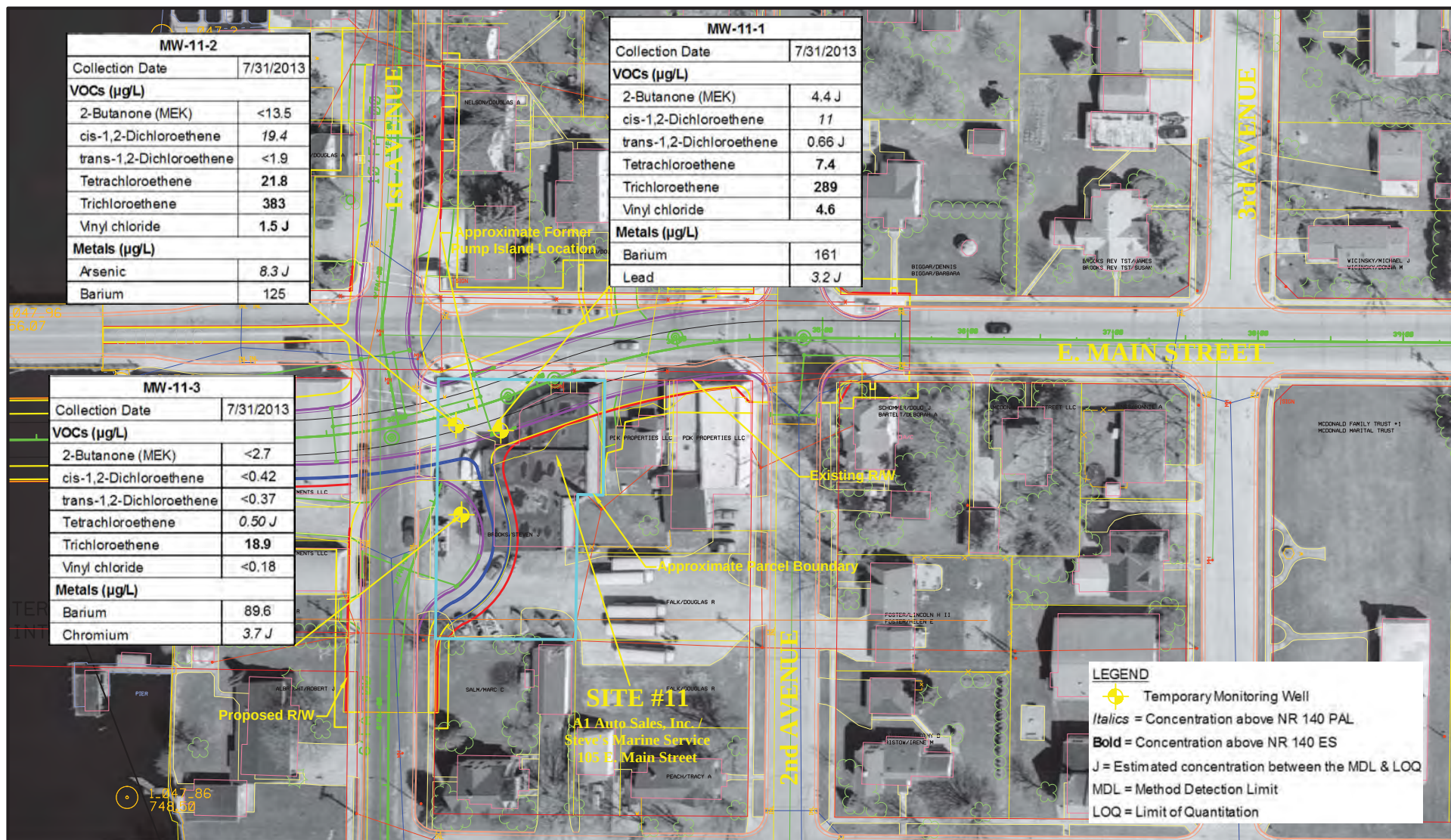
FIGURE 3.2: SOIL QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

FIGURE 3.3: GROUNDWATER QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin

MW-11-3) and submitted for laboratory analysis. The water samples were analyzed for VOCs and RCRA metals.

5.0 SUBSURFACE CONDITIONS

5.1 Soil Conditions

Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to a depth of approximately 6 feet bgs. The fill materials consisted mainly of red sandy clay, with trace wood and brick fragments, medium to fine sand with gravel, cinders, and glass fragments.

Native brown to red clay tills with trace amounts of fine gravel were encountered below the fill materials to the terminal depths of 20 feet bgs. Refer to soil boring logs in Attachment B for more detailed descriptions of the soils encountered at each boring location.

Continuous soil samples were obtained from the borings and field-screened for the presence of volatile organic vapors using a photoionization detector (PID). The field screening results for the collected 30 soil samples were all zero and are summarized in Table 1. No staining or odors were noted in the boring logs (see Attachment B). Note that asphalt was being overlain on STH 116 at the time of Himalayan's field work; therefore, it is possible that background calibration may have been elevated on the PID.

TABLE 1 FIELD SCREENING RESULTS Phase 2 Hazardous Materials Investigation A1 Auto Sales, Inc. / Steve's Marine Service (105 E. Main Street) Winneconne, Winnebago County Project ID: 6190-17-00				
Boring ID		B-11-1	B-11-2	B-11-3
Date		7/30/13	7/30/13	7/30/13
Depth (feet)	0-2	0.0	0.0	0.0
	2-4	0.0	0.0	0.0
	4-6	0.0	0.0	0.0
	6-8	0.0	0.0	0.0
	8-10	0.0	0.0	0.0
	10-12	0.0	0.0	0.0
	12-14	0.0	0.0	0.0
	14-16	0.0	0.0	0.0
	16-18	0.0	0.0	0.0
	18-20	0.0	0.0	0.0
Notes: Results provided in instrument units (IU).				

5.2 Groundwater Conditions

Groundwater was encountered in each temporary well, at depths ranging from 7.2 to 14.2 feet bgs. It should be noted that groundwater depths can vary throughout the year, depending on several factors that include seasonal variations in precipitation, infiltration, and surface water runoff.

Refer to the soil boring logs in Attachment B for additional groundwater information encountered at each boring location.

6.0 ANALYTICAL RESULTS

6.1 Soil Samples

Laboratory analyses was performed on two soil samples selected from each borehole, at various depths ranging from 2 to 12 feet bgs.

No GRO was detected in any of the samples collected. DRO was detected in B-11-1 2-4' (2.9 mg/kg) below the NR 720 RCL [Ref. 6].

Two VOCs were detected in two of the soil samples. Tetrachloroethene (74.7 to 169 µg/kg) and trichloroethene (162 to 195 µg/kg) were both detected in B-11-1 8-10' and B-11-2 10-12'. No NR 720 RCL has been established for either of these VOCs.

Six of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic (1.2 to 4.9 mg/kg) was detected above the NR 720 RCL in each of the six samples. Chromium (6.6 to 22.1 mg/kg) was detected in each of the soil samples. Concentrations in five samples (B-11-1 8-10' at 22.1 mg/kg, B-11-2 10-12' at 18.5 mg/kg, and B-11-3 8-10' at 19.7 mg/kg) were detected above the NR 720 RCL, hexavalent chromium only.

Lead (1.9 to 5.4 mg/kg) was detected in each of the soil samples, below the NR 720 RCL.

Barium (16.8 to 85.8 mg/kg), cadmium (0.13 J to 0.28 J mg/kg), and mercury (0.010 to 0.11 mg/kg) were also detected in several of the samples, below their respective NR 720 RCLs or no standard has been established. A "J" denotes a concentration flagged by the laboratory as an estimated concentration. Additionally, selenium and silver were not detected in any of the samples analyzed.

TABLE 2							
SOIL QUALITY RESULTS - DETECTED COMPOUNDS							
Phase 2 Hazardous Materials Investigation							
A1 Auto Sales, Inc. / Steve's Marine Service (105-113 E. Main Street), Winneconne, Winnebago County							
Project ID: 6190-17-00							
Sample I.D.	B-11-1		B-11-2		B-11-3		Generic NR 720 RCL
Depth (feet)	2-4	8-10	2-4	10-12	2-4	8-10	
Collection Date	7/30/2013		7/30/2013		7/30/2013		
GRO (mg/kg)	<2.7	<3.1	<2.7	<3.1	<2.8	<3.2	100/250*
DRO (mg/kg)	2.9	<0.77	<0.72	<0.82	<0.74	<0.77	100/250*
VOCs (µg/kg)							
Tetrachloroethene	<27.5	169	<26.9	74.7	<25.8	<25.0	NSE
Trichloroethene	<27.5	195	<26.9	162	<25.8	<25.0	NSE
RCRA Metals (mg/kg)							
Arsenic	4.4	4.9	4.2	4.3	1.2 J	3.9	0.039 (b)
Barium	25.9	85.8	51.2	68.8	16.8	73.3	NSE
Cadmium	0.13 J	0.28 J	0.20 J	0.26 J	<0.047	<0.23 J	8 (b)
Chromium	13.0	22.1	12.6	18.5	6.6	19.7	14 (a) (b)
Lead	4.1	5.4	4.3	7.7	1.9	4.9	50 (b)
Mercury	0.017	0.010	0.11	0.016	<0.0032	<0.0076	NSE
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table GRO= Gasoline Range Organics; DRO= Diesel Range Organics; VOC= Volatile Organic Compounds; TCLP= Toxicity characteristic leaching procedure RCRA = Resource Conservation and Recovery Act; Bold results indicate concentrations exceeding NR 720 or Interim RCLs mg/kg=milligrams per kilogram and mg/L milligrams per liter=parts per million (ppm); µg/kg=micrograms per kilogram=parts per billion (ppb) J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit ; NSE = No Standard Established; RCL= Residual * = RCLs (mg/kg) based on permeability of soils per NR 720 for groundwater protection							

Table 2 presents the summary of soil quality results. Also, refer to Figure 3.2, Attachment A for sample locations and analytical results.

Refer to Attachment D for complete laboratory report for each sample.

6.2 Groundwater Samples

Based on the laboratory analytical results of groundwater samples collected from temporary wells MW-11-1, MW-11-2, and MW-11-3, no petroleum constituents were detected in any of the water samples. However, chlorinated solvents were detected in each of the samples. Trichloroethene (18.9 to 383 µg/L) was detected above the NR 140 ES in each of the three samples. Tetrachloroethene was detected above the NR 140 ES in MW-11-1 (7.4 µg/L) and MW-11-2 (21.8 µg/L) and above the NR 140 PAL in MW-11-3 (0.50 J µg/L). Vinyl chloride was detected above the NR 140 ES in MW-11-1 (4.6 µg/L) and MW-11-2 (1.5 J µg/L).

Cis-1,2-dichloroethene was detected in MW-11-1 (11.0 µg/L) and MW-11-2 (19.4 µg/L) above the NR 140 PAL.

Trans-1,2-dichloroethene (0.66 µg/L) and 2-butanone (MEK) (4.4 J µg/L) were also detected in MW-11-1, but are below their respective NR 140 PALs.

Four of the eight RCRA metals were detected in the samples. Arsenic (8.3 J µg/L) was identified in MW-11-2, chromium (3.7 J µg/L) was identified in MW-11-3, and lead (3.2 J µg/L) was identified in MW-11-1, and are all above their respective NR 140 PAL. Barium (89.6 to 161 µg/L) was detected below the NR 140 PAL in all samples.

Also refer to Figure 3.3 in Attachment B for the well locations and Attachment D for the laboratory results.

TABLE 3 GROUNDWATER RESULTS - DETECTED COMPOUNDS Phase 2 Hazardous Materials Investigation A1 Auto Sales, Inc. / Steve's Marine Service (105 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00					
Sample I.D.	MW-11-1	MW-11-2	MW-11-3	NR 140 ES	NR 140 PAL
Collection Date	7/31/13	7/31/13	7/31/13	(µg/L)	(µg/L)
VOCs (µg/L)					
2-Butanone (MEK)	4.4 J	<13.5	<2.7	460	90
cis-1,2-Dichloroethene	11.0	19.4	<0.42	70	7
trans-1,2-Dichloroethene	0.66 J	<1.9	<0.37	100	20
Tetrachloroethene	7.4	21.8	0.50 J	5	0.5
Trichloroethene	289	383	18.9	5	0.5
Vinyl chloride	4.6	1.5 J	<0.18	0.2	0.02
RCRA Metals (µg/L)					
Arsenic	<4.2	8.3 J	<4.2	10	1
Barium	161	125	89.6	2,000	400
Chromium	<1.4	<1.4	3.7 J	5	0.5
Lead	3.2 J	<2.7	<2.7	15	1.5
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table VOCs = Volatile Organic Compounds RCRA = Resource Conservation and Recovery Act µg/L = micrograms per liter = parts per billion (ppb) J = Concentration reported is between the Method Detection Limit and the Limit of Quantitation Italics results indicate concentrations exceeding NR 140 PAL Bold results indicate concentrations exceeding NR 140 ES ES = Enforcement Standard per NR 140; PAL = Preventative Action Limit					

6.3 Waste Characterization Sample

A composite soil sample (Proto B-11) was collected from the site for landfill acceptance criteria (Protocol B) to provide waste characterization for potential off-site disposal and/or treatment of contaminated soils at a landfill.

Based on the laboratory analytical results, no cyanide, PCBs, TCLP VOCs, and TCLP Semi-volatiles were detected in the sample. The general chemistry results for the sample included:

TABLE 4 LABORATORY ANALYTICAL RESULTS - Protocol B Phase 2 Hazardous Materials Investigation A1 Auto Sales (105 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Sample I.D. : Proto B-11	Sample Results	Units
Sample I.D. : Proto B-11		
General Chemistry		
% of Solids	87.2	%
Cyanide (total)	0.0070 J	mg/kg
Flashpoint	>210	°F
pH	8.4	pH Units
Specific Gravity	1.6	N/A
Free liquids	Pass	N/A
Sulfide	10.4 J	mg/kg
TCLP Metals		
Arsenic	<0.12	mg/L
Barium	<1.2	mg/L
Cadmium	<0.0025	mg/L
Chromium	<0.12	mg/L
Copper	<0.12	mg/L
Lead	<0.015	mg/L
Mercury	<0.10	mg/L
Nickel	<0.12	mg/L
Selenium	<0.12	mg/L
Silver	<0.12	mg/L
Zinc	<0.12	mg/L
PCBs		
PCB-1016	<0.0287	mg/kg
PCB-1221	<0.0287	mg/kg
PCB-1232	<0.0287	mg/kg
PCB-1242	<0.0287	mg/kg
PCB-1248	<0.0287	mg/kg
PCB-1254	<0.0287	mg/kg
PCB-1260	<0.0287	mg/kg
TCLP VOCs		
Benzene	<0.005	mg/L
Methyl Ethyl Ketone	<0.027	mg/L
Carbon Tetrachloride	<0.0037	mg/L
Chlorobenzene	<0.0036	mg/L
Chloroform	<0.0069	mg/L
1,2-Dichloroethane	<0.0048	mg/L
1,1-Dichloroethene	<0.0043	mg/L
Tetrachloroethene	<0.0047	mg/L
Trichloroethene	<0.0043	mg/L
Vinyl Chloride	<0.0018	mg/L

TABLE 4 (Continued) LABORATORY ANALYTICAL RESULTS – Protocol B Phase 2 Hazardous Materials Investigation A1 Auto Sales (105 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Sample I.D. Proto B-11	Sample Results	Units
TCLP Semi-VOCs		
1,4-Dichlorobenzene	<0.0086	mg/L
2,4-Dinitrotoluene	<0.0080	mg/L
Hexachloro-1,3-butadiene	<0.0066	mg/L
Hexachlorobenzene	<0.0111	mg/L
Hexachloroethane	<0.0058	mg/L
2-Methylphenol (o-Cresol)	<0.0097	
3&4-Methylphenol (m&p Cresol)	<0.0077	mg/L
Nitrobenzene	<0.0137	mg/L
Pentachlorophenol	<0.0108	mg/L
Pyridine	<0.0143	mg/L
2,4,5-Trichlorophenol	<0.010	mg/L
2,4,6-Trichlorophenol	<0.0107	mg/L
Notes: VOCs = Volatile Organic Compounds mg/kg = milligrams per kilogram = parts per million (ppm) mg/L = milligrams per liter = parts per million (ppm) TCLP = Toxicity Characteristic Leaching Procedure		

7.0 FINDINGS

- Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to a depth of approximately 6 feet bgs. The fill materials consisted mainly of red sandy clay, with trace wood and brick fragments, medium to fine sand with gravel, cinders, and glass fragments. Native brown to red clay tills with trace amounts of fine gravel were encountered below the fill materials to the terminal depths of 20 feet bgs. Groundwater was encountered in each temporary well, at depths ranging from 7.2 to 14.2 feet bgs.
- No GRO was detected in any of the samples collected. DRO was detected in B-11-1 2-4' below the NR 720 RCL.
- Two VOCs were detected in two of the soil samples. Tetrachloroethene and trichloroethene were both detected in B-11-1 8-10' and B-11-2 10-12'. No NR 720 RCL has been established for either of these VOCs.

- Six of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic was detected above the NR 720 RCL in each of the six samples. Chromium was detected in each of the soil samples. Concentrations in five samples were detected above the NR 720 RCL, hexavalent chromium only. Lead was detected in each of the samples analyzed at concentrations which are below the NR 720 RCL. No standards exist for barium and mercury detected in the samples
- No petroleum constituents were detected in any of the water samples.
- Trichloroethene was detected above the NR 140 ES in each of the three samples. Tetrachloroethene was detected above the NR 140 ES in MW-11-1 and MW-11-2 and above the NR 140 PAL in MW-11-3. Vinyl chloride was detected above the NR 140 ES in MW-11-1 and MW-11-2. Cis-1,2-dichloroethene was detected in MW-11-1 and MW-11-2 above the NR 140 PAL. Trans-1,2-dichloroethene and 2-butanone (MEK) were also detected in MW-11-1, but are below their respective NR 140 PALs.
- Arsenic was identified in MW-11-2, chromium was identified in MW-11-3, and lead was identified in MW-11-1, and are all above their respective NR 140 PAL. Barium was detected below the NR 140 PAL in all samples.
- Based on the laboratory analytical results, no cyanide, PCBs, TCLP VOCs, and TCLP Semi-volatiles were detected in the waste characterization sample. The general chemistry results for the sample included: flashpoint >210 deg. F, pH 8.4, specific gravity 1.6, sulfide 10.4 J mg/kg. No free liquids were encountered in the sample.
- Based on the age of the building (at least 1893), potential asbestos containing materials (ACM) and lead based paint (LBP) may be present in the building on site.

8.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on the results of Himalayan's Phase 2 HMI, evidence of hazardous substance release (chlorinated solvent impacts) was documented at the site. Therefore, Himalayan recommends that a Phase 3 hazardous materials investigation (FDM Procedure: 21-35-15) be considered for the site to fully characterize and define the lateral and vertical extent of soil and groundwater contamination and assist in determining the value of the parcel for acquisition purposes, prior to the total take of the site.
- The impacts discovered at the site should be reported to the WDNR in order to satisfy the notification requirements per hazardous substance spills law, Section 292.11(2).

- Pre-demolition asbestos and lead surveys should be performed to evaluate whether ACMs or LBP are present in the structure. All demolition activities should be performed in accordance with local, state, and federal regulations.

9.0 REFERENCES

1. Winnebago County GIS Website. WINGS Property Profiler.
http://wcfgis.co.winnebago.wi.us/cgi-bin/wings/doc/gis_menu.cgi
2. Himalayan Consultants, LLC, (August 2012). Phase I Hazardous Material Assessment, WisDOT Project ID 1030-20-00, STH 116 Corridor Study (2nd Street - 2nd Avenue), Winneconne, Winnebago County, Wisconsin.
3. Wisconsin Department of Agriculture, Trade and Consumer Protection - Storage Tank Database –http://apps.commerce.state.wi.us/ER_Tanks/ER-EN-TankSearch.htm
4. Wisconsin Department of Transportation (December 2011). Facilities Development Manual, Procedures 21-35-10 and 21-35-30.
5. Wisconsin Department Natural Resources (March 2011). Wisconsin Administrative Code NR 141, Groundwater Monitoring Well Requirements.
6. Wisconsin Department Natural Resources (September 2007). Wisconsin Administrative Code NR 720, Soil Cleanup Standards.
7. Wisconsin Department Natural Resources (January 2012). Wisconsin Administrative Code NR 140, Groundwater Quality.

Site #12
Hometown Family Hair Care (117-119 E. Main Street)

Wisconsin Department of Natural Resources

Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[BOTW Home](#) > [Basic Search](#) > [Search Results](#) > 02-71-562227 Activity Details

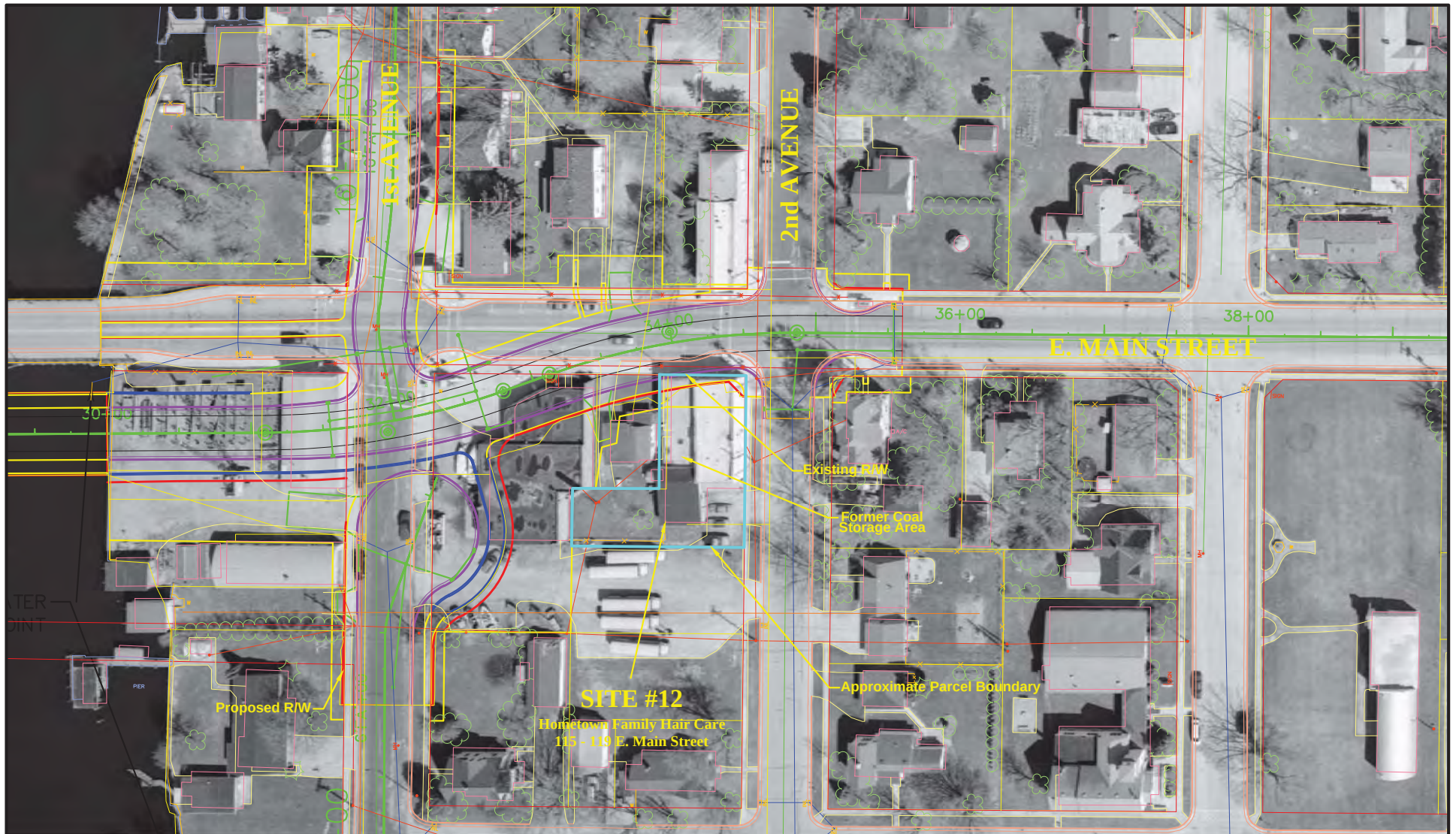
02-71-562227 PDK PROPERTIES - WI DOT ERP - OPEN						
Location Name (Click Location Name to View Location Details)				County	WDNR Region	
PDK PROPERTIES				WINNEBAGO	NORTHEAST	
Address				Municipality		
115 E MAIN ST				WINNECONNE VI		
Public Land Survey System			Latitude	Google Maps	RR Sites Map	
NE 1/4 of the NE 1/4 of Sec 21, T19N, R15E			44.1107279	CLICK TO VIEW	CLICK TO VIEW	
Additional Location Description			Longitude	Facility ID	Size (Acres)	
NONE			-88.7070797	NONE	UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2014-06-25		2014-07-21	
Characteristics						
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry?
No	No	No	No	No	No	No
Actions						
Place Cursor Over Code to View Description						
Date	Code	Name	Comment			
2014-06-25	1	Notification	WI DOT PHASE 2 HAZARDOUS MATERIALS INVESTIGATION FEB 2014			
2014-07-03	2	RP Letter Sent				
2014-07-11	99	Miscellaneous	MEETING W/RP REGARDING VAPOR INVESTIGATION			
2014-07-21	99	Miscellaneous	MEETING W/RP & TENANTS REGARDING VAPOR INTRUSION			
Substances						
Substance		Type		Amount Released	Units	
Chlorinated Solvents		VOC				
Polynuclear Aromatic Hydrocarbons		Petroleum				
Who						
Click name of Project Manager or File Contact to compose email						
Role	Name/Address					
Consultant	HIMALAYAN CONSULTANTS LLC W156 N11357 PILGRIM ROAD GERMANTOWN, WI 53022					
Project Manager	ELIZABETH VICTOR 625 E COUNTY RD Y OSHKOSH, WI 54901					
RP Contact/Agent	PETER KASUBOSKI 7265 CTY RD D OMRO, WI 54963					
Responsible Party	PDK PROPERTIES 7265 CTY RD D OMRO, WI 54963					
Quick Response Codes Scan the QR Code to transfer to your wireless device						

				
	This Page URL	Google Maps		

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.

The Official Internet site for the Wisconsin Department of Natural Resources
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621 

Release 2.16 | 08/05/2014 | [Release Notes](#)



Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

FIGURE 3.1: SITE OVERVIEW MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin



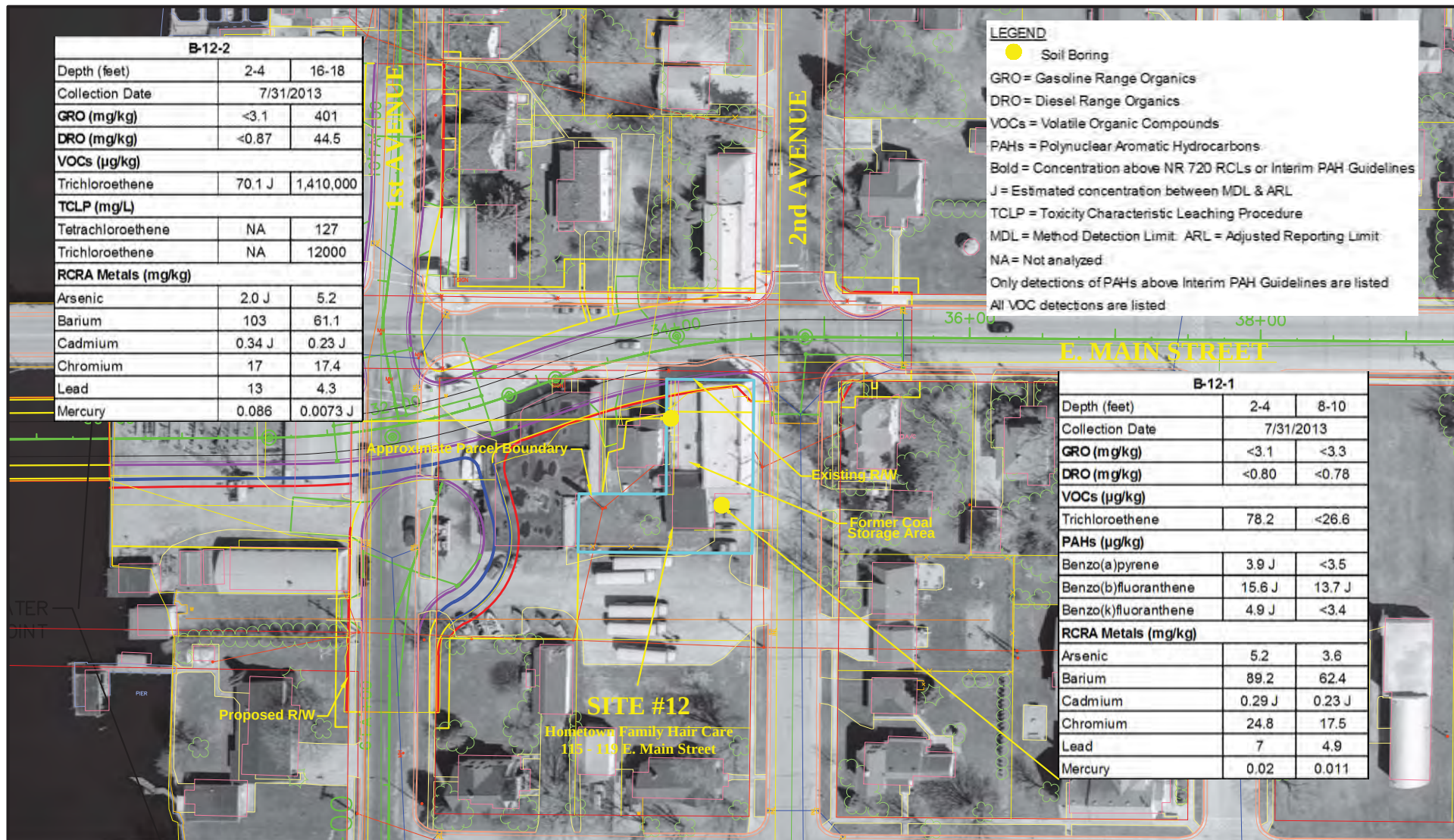


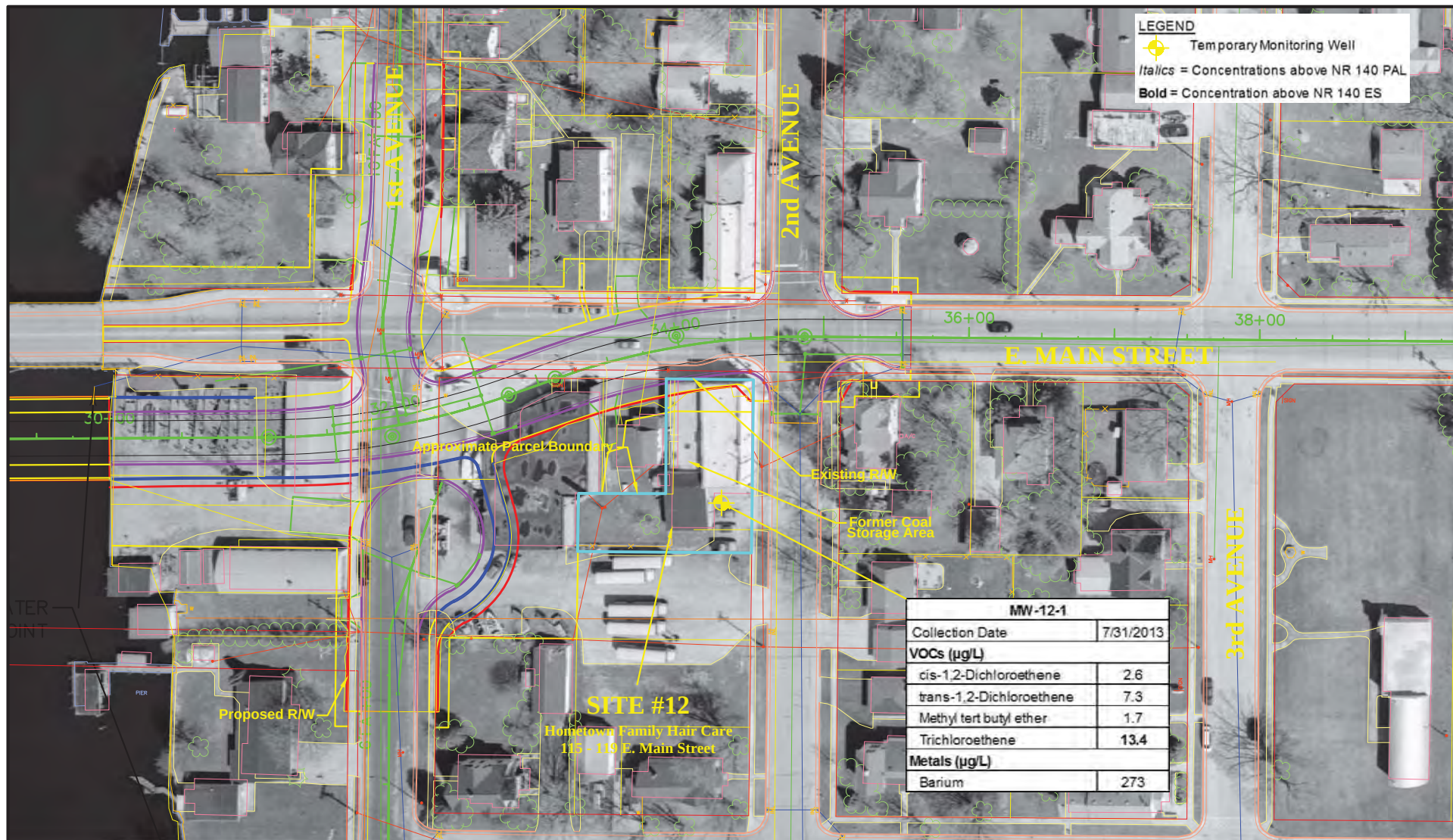
FIGURE 3.2: SOIL QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00
STH 116
2nd Street - 2nd Avenue
Winneconne, Winnebago County, Wisconsin





Source: Base Map Provided By EMCS, Inc.
Aerial Provided by CH2M Hill

Scale: 0 50 100 200

FIGURE 3.3: GROUNDWATER QUALITY MAP



HIMALAYAN CONSULTANTS, LLC
Engineers and Hydrogeologists
W156 N11357 Pilgrim Road
Germantown, Wisconsin 53022
Phone: (262) 502-0066
Fax: (262) 502-0077

Project ID: 6190-17-00

STH 116

2nd Street - 2nd Avenue

Winneconne, Winnebago County, Wisconsin



RCRA metals. Temporary monitoring well W-12-2 had insufficient groundwater recharge for sample collection.

5.0 SUBSURFACE CONDITIONS

5.1 Soil Conditions

Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to a depth of approximately 2 feet bgs. The fill materials consisted mainly of black sandy silt, with trace small and large gravel.

Native red clay tills with trace amounts of fine gravel were encountered below the fill materials to the terminal depths of 20 feet bgs.

Refer to soil boring logs in Attachment B for more detailed descriptions of the soils encountered at each boring location.

Continuous soil samples were obtained from the borings and field-screened for the presence of volatile organic vapors using a photoionization detector (PID). The field screening results for the collected 34 soil samples were all zero and are summarized in Table 1. A strong solvent odor was noted in borehole samples collected from B-12-2, at depths greater than 14 feet bgs (see Attachment B). Note that asphalt was being overlain on STH 116 at the time of Himalayan's field work; therefore, it is possible that background calibration may have been elevated on the PID.

TABLE 1 FIELD SCREENING RESULTS Phase 2 Hazardous Materials Investigation Hometown Family Hair Care (119 E. Main Street) Winneconne, Winnebago County Project ID: 6190-17-00			
Boring ID		B-12-1	B-12-2
Date		7/31/13	7/31/13
Depth (feet)	0-2	0.0	0.0
	2-4	0.0	0.0
	4-6	0.0	0.0
	6-8	0.0	0.0
	8-10	0.0	0.0
	10-12	0.0	0.0
	12-14	0.0	0.0
	14-16	0.0	1139
	16-18	0.0	4648
	18-20	0.0	1003
Notes: Results provided in instrument units (IU).			

5.2 Groundwater Conditions

Saturated soil conditions were observed in borings B-12-1 and B-12-2 at approximately 2 feet bgs. Temporary monitoring wells (W-12-1 and W-12-2) were installed in each boring. Groundwater was encountered at approximately 13.7 feet bgs in W-12-1. Temporary monitoring well W-12-2 had insufficient groundwater recharge for sample collection. It should be noted that groundwater depths can vary throughout the year, depending on several factors including seasonal variations in precipitation, infiltration, and surface water runoff.

Refer to the soil boring logs in Attachment B for additional information regarding groundwater conditions encountered at each boring location.

6.0 ANALYTICAL RESULTS

6.1 Soil Samples

Laboratory analyses were performed on two soil samples selected from each borehole, at various depths ranging from 2 to 18 feet bgs.

GRO was detected in B-12-2 16-18' (401 mg/kg) above the NR 720 RCL [Ref. 6]. DRO was detected in B-12-2 16-18' (44.5 mg/kg) and is below the NR 720 RCL.

VOCs were detected in three of the soil samples. Trichloroethene (70.1 J to 1,410,000 µg/kg) were both detected in B-12-1 2-4', B-12-2 2-4' and B-12-2 16-18'. No NR 720 RCL has been established for this VOC. A "J" denotes a concentration flagged by the laboratory as an estimated concentration.

Six of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic (2.0 J to 5.2 mg/kg) was detected above the NR 720 RCL in each of the four samples. Chromium (17.0 to 24.8 mg/kg) was detected in each of the soil samples. Concentrations in all four samples were detected above the NR 720 RCL for hexavalent chromium only.

Lead (4.3 to 13.0 mg/kg) was detected in each of the soil samples. No concentrations exceeded the NR 720 RCL.

Barium (61.1 to 103 mg/kg), cadmium (0.23 J to 0.34 J mg/kg), and mercury (0.0073 J to 0.086 mg/kg) were also detected in several of the samples. Each of these detected metals are below their respective NR 720 RCLs or no standard has been established. Additionally, selenium and silver were not detected in any of the samples analyzed.

Eleven PAHs were detected in the soil samples. Benzo(a)pyrene was detected in B-12-2 2-4' (22.0 µg/kg) above its Interim RCL and below the Interim RCL in B-12-1 2-4' (3.9 J µg/kg) [Ref. 7]. The remaining ten PAHs were detected below any Interim RCLS. Benzo(b)fluoranthene (13.3 J to 28.9 µg/kg) was detected in all four samples, benzo(k)fluoranthene was detected in B-12-1 2-4' (4.9 J µg/kg) and B-12-2 2-4' (23.1 µg/kg), phenanthrene was detected in B-12-2 2-4' (33.8 µg/kg) and B-12-2 16-18' (16.5 J µg/kg), 1-Methylnaphthalene (5.5 J µg/kg) was detected in B-12-2 16-18'. Boring B-12-2 2-4' also contained concentrations of anthracene (11.0 J µg/kg), benzo(a)anthracene (25.1 µg/kg), benzo(g,h,i)perylene (10.6 J µg/kg), chrysene (28.7 µg/kg), fluoranthene (52.8 µg/kg), and pyrene (45.3 µg/kg).

Table 2 presents the summary of soil quality results. Also, refer to Figure 3.2, Attachment A for sample locations and analytical results.

TABLE 2 SOIL QUALITY RESULTS Phase 2 Hazardous Materials Investigation Hometown Family Hair Care (119 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00					
Sample I.D.	B-12-1		B-12-2		NR 720 RCL / Interim RCL
Depth (feet)	2-4	8-10	2-4	16-18	
Collection Date	7/31/2013		7/31/2013		
GRO (mg/kg)	<3.1	<3.3	<3.1	401	250*
DRO (mg/kg)	<0.80	<0.78	<0.87	44.5	250*
PAHs (µg/kg)					
Anthracene	<9.8	<9.7	11.0 J	<9.6	3,000,000
Benzo(a)anthracene	<9.8	<9.7	25.1	<9.6	88
Benzo(a)pyrene	3.9 J	<3.5	22.0	<3.4	8.8
Benzo(b)fluoranthene	15.6 J	13.7 J	28.9	13.3 J	88
Benzo(g,h,i)perylene	<9.8	<9.7	10.6 J	<9.6	1,800
Benzo(k)fluoranthene	4.9 J	<3.4	23.1	<3.4	880
Chrysene	<9.8	<9.7	28.7	<9.6	8,800
Fluoranthene	<9.8	<9.7	52.8	<9.6	500,000
1-Methylnaphthalene	<3.4	<3.4	<3.7	5.5 J	23,000
Phenanthrene	<9.8	<9.7	33.8	16.5 J	1,800
Pyrene	<9.8	<9.7	45.3	<9.6	500,000
VOCs (µg/kg)					
Tetrachloroethene	<26.3	<26.6	<26.9	<5,260**	NSE
Trichloroethene	78.2	<26.6	70.1 J	1,410,000	NSE
TCLP (mg/L)					
Tetrachloroethene	NA	NA	NA	127	---
Trichloroethene	NA	NA	NA	12,000	---
RCRA Metals (mg/kg)					
Arsenic	5.2	3.6	2.0 J	5.2	0.039
Barium	89.2	62.4	103	61.1	NSE
Cadmium	0.29 J	0.23 J	0.34 J	0.23 J	8
Chromium	24.8	17.5	17.0	17.4	14
Lead	7.0	4.9	13.0	4.3	50
Mercury	0.020	0.011	0.086	0.0073 J	NSE
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table GRO= Gasoline Range Organics; DRO= Diesel Range Organics; VOC= Volatile Organic Compounds; TCLP= Toxicity characteristic leaching procedure RCRA = Resource Conservation and Recovery Act; Bold results indicate concentrations exceeding NR 720 or Interim RCLs J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit * = RCLs (mg/kg) based on permeability of soils per NR 720 for groundwater protection **= Tetrachloroethene not detected above the method detection limit; however, it was detected in the TCLP sample					

Refer to Attachment D for complete laboratory report for each sample.

6.2 Groundwater Samples

Based on the laboratory analytical results of the groundwater sample collected from temporary well MW-12-1, four VOCs were detected in the sample. Trichloroethene (13.4 µg/L) was detected above the NR 140 ES. Cis-1,2-dichloroethene (2.6 µg/L), trans-1,2-dichloroethene (7.3 µg/L), and methyl tert butyl ether (1.7 µg/L) were detected below the NR 140 PALs in the sample [Ref. 8].

Barium (273 µg/L) was the only RCRA metal detected in the groundwater sample, and is below its NR 140 PAL.

Also refer to Figure 3.3 in Attachment A for the well locations and Attachment D for the laboratory results.

TABLE 3 GROUNDWATER RESULTS - DETECTED COMPOUNDS Phase 2 Hazardous Materials Investigation Hometown Family Hair Care (119 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00			
Sample I.D.	MW-12-1	NR 140 ES (µg/L)	NR 140 PAL (µg/L)
Collection Date	7/31/13		
VOCs (µg/L)			
cis-1,2-dichloroethene	2.6	70	7
trans-1,2-dichloroethene	7.3	100	20
Methyl tert butyl ether	1.7	60	12
Trichloroethene	13.4	5	0.5
RCRA Metals (µg/L)			
Barium	273	2,000	400
Notes: Analytes detected above the method detection limit (MDL) in at least one sample are included in the Table VOCs = Volatile Organic Compounds RCRA = Resource Conservation and Recovery Act µg/L = micrograms per liter = parts per billion (ppb) Italics results indicate concentrations exceeding NR 140 PAL Bold results indicate concentrations exceeding NR 140 ES ES = Enforcement Standard per NR 140; PAL = Preventative Action Limit			

6.3 Waste Characterization Sample

A composite soil sample (Proto B-12) was collected from the site for landfill acceptance criteria (Protocol B) to provide waste characterization for potential off-site disposal and/or treatment of contaminated soils at a landfill.

Based on the laboratory analytical results, no sulfide, PCBs, and TCLP Semi-Volatiles were detected in the sample. The general chemistry results for the sample included: mercury 0.00038 mg/L, trichloroethene 0.150 mg/L, flashpoint >210 deg. F, pH 8.6, specific gravity 1.7, and reactive cyanide 0.0050 J mg/kg. No free liquids were encountered in the sample.

Table 4 presents the summary of soil quality results for the composite sample. See Attachment D for complete laboratory report.

TABLE 4 LABORATORY ANALYTICAL RESULTS - Protocol B Phase 2 Hazardous Materials Investigation Hometown Family Hair Care (119 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Analyte	Sample Results	Units
Sample I.D. : Proto B-12		
General Chemistry		
% of Solids	85.8	%
Cyanide (total)	0.0050 J	mg/kg
Flashpoint	>210	°F
pH	8.6	pH Units
Specific Gravity	1.7	N/A
Free liquids	Pass	N/A
Sulfide	0.0 J	mg/kg
TCLP Metals		
Arsenic	<0.12	mg/L
Barium	<1.2	mg/L
Cadmium	<0.0025	mg/L
Chromium	<0.12	mg/L
Copper	<0.12	mg/L
Lead	<0.015	mg/L
Mercury	0.00038	mg/L
Nickel	<0.12	mg/L
Selenium	<0.12	mg/L
Silver	<0.12	mg/L
Zinc	<0.12	mg/L
PCBs		
PCB-1016	<0.0291	mg/kg
PCB-1221	<0.0291	mg/kg
PCB-1232	<0.0291	mg/kg
PCB-1242	<0.0291	mg/kg
PCB-1248	<0.0291	mg/kg
PCB-1254	<0.0291	mg/kg
PCB-1260	<0.0291	mg/kg
TCLP VOCs		
Benzene	<0.005	mg/L
Methyl Ethyl Ketone	<0.027	mg/L
Carbon Tetrachloride	<0.0037	mg/L
Chlorobenzene	<0.0036	mg/L
Chloroform	<0.0069	mg/L
1,2-Dichloroethane	<0.0048	mg/L
1,1-Dichloroethene	<0.0043	mg/L
Tetrachloroethene	<0.0047	mg/L
Trichloroethene	0.150	mg/L
Vinyl Chloride	<0.0018	mg/L

TABLE 4 (Continued) LABORATORY ANALYTICAL RESULTS – Protocol B Phase 2 Hazardous Materials Investigation Hometown Family Hair Care (119 E. Main Street), Winneconne, Winnebago County Project ID: 6190-17-00		
Analyte	Sample Results	Units
Sample I.D. Proto B-12		
TCLP Semi-VOCs		
1,4-Dichlorobenzene	<0.0086	mg/L
2,4-Dinitrotoluene	<0.0080	mg/L
Hexachloro-1,3-butadiene	<0.0066	mg/L
Hexachlorobenzene	<0.0111	mg/L
Hexachloroethane	<0.0058	mg/L
2-Methylphenol (o-Cresol)	<0.0097	
3&4-Methylphenol (m&p Cresol)	<0.0077	mg/L
Nitrobenzene	<0.0137	mg/L
Pentachlorophenol	<0.0108	mg/L
Pyridine	<0.0143	mg/L
2,4,5-Trichlorophenol	<0.010	mg/L
2,4,6-Trichlorophenol	<0.0107	mg/L
Notes: VOCs = Volatile Organic Compounds mg/kg = milligrams per kilogram = parts per million (ppm) mg/L = milligrams per liter = parts per million (ppm) TCLP = Toxicity Characteristic Leaching Procedure		

7.0 FINDINGS

- Based on field observations, the shallow subsurface soils at the site consisted of fill materials from the ground surface to a depth of approximately 2 feet bgs. The fill materials consisted mainly of black sandy silt, with trace small and large gravel. Native red clay tills with trace amounts of fine gravel were encountered below the fill materials to the terminal depths of 20 feet bgs. Groundwater was encountered in only one temporary well, B-12-1, at a depth of 13.7 feet bgs.
- A strong solvent odor was noted in borehole samples collected from B-12-2, at depths greater than 14 feet bgs.
- GRO was detected in B-12-2 16-18' above the NR 720 RCL. DRO was detected in B-12-2 16-18' and is below the NR 720 RCL.
- Trichloroethene (70.1 J to 1,410,000 µg/kg) was detected in B-12-1 2-4', B-12-2 2-4' and B-12-2 16-18'. No NR 720 RCL has been established for this VOC.

- Six of the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, and mercury) were detected in the soil samples. Arsenic was detected above the NR 720 RCL in each of the four samples. Chromium was detected in each of the soil samples and the concentrations in all four samples were detected above the NR 720 RCL for hexavalent chromium only. No other metals were detected above their respective NR 720 RCLs or no RCLs have been established for the detected compounds.
- Eleven PAHs were detected in the soil samples. Benzo(a)pyrene was detected in B-12-2 2-4' above its Interim RCL. No other PAHs were detected above their respective Interim RCLs.
- Four VOCs were detected in the groundwater sample (MW-12-1). Trichloroethene was detected above the NR 140 ES. Cis-1,2-dichloroethene, trans-1,2-dichloroethene, and methyl tert butyl ether were detected below the NR 140 PALs in the sample.
- Barium was the only RCRA metal detected in the groundwater sample, and is below its NR 140 PAL.
- Based on the waste characterization sample, no sulfide, PCBs, and TCLP Semi-Volatiles were detected in the sample. The general chemistry results for the sample included: mercury 0.00038 mg/L, trichloroethene 0.150 mg/L, flashpoint >210 deg. F, pH 8.6, specific gravity 1.7, and reactive cyanide 0.0050 J mg/kg. No free liquids were encountered in the sample.
- Based on the age of the building (at least 1893), potential asbestos containing materials (ACM) and lead based paint (LBP) may be present in the building on site.

8.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on the results of Himalayan's Phase 2 HMI, evidence of hazardous substance release (chlorinated solvent impacts) was documented at the site. Therefore, Himalayan recommends that a Phase 3 hazardous materials investigation (FDM Procedure: 21-35-15) be considered for the site to fully characterize and define the lateral and vertical extent of soil and groundwater contamination and assist in determining the value of the parcel for acquisition purposes, prior to the total take of the site.
- The impacts discovered at the site should be reported to the WDNR in order to satisfy the notification requirements per hazardous substance spills law, Section 292.11(2).
- Pre-demolition asbestos and lead surveys should be performed to evaluate whether ACMs or LBP are present in the structure. All demolition activities should be performed in accordance with local, state, and federal regulations.

Appendix B

Site Photographs



Photographic Log

Client Name:		Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)		STH 16 (2 nd Street to 2 nd Ave.) Winneconne, WI	TRC: 223432.0000.0000 WisDOT: 6190-17-00
Photo No.	Date		
1			
Description Soils from Site 8. Organic fill with wood chips, slag and gravel.			
Photo No.	Date		
2			
Description TRC-8-1 monitoring well.			



Photographic Log

Client Name:		Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)		STH 16 (2 nd Street to 2 nd Ave.) Winneconne, WI	TRC: 223432.0000.0000 WisDOT: 6190-17-00
Photo No.	Date		
3			
Description			
Geoprobe rig.			

Photo No.	Date		
4			
Description			
Geoprobe rig installing monitoring well at Site 11.			



Photographic Log

Client Name:		Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)		STH 16 (2 nd Street to 2 nd Ave.) Winneconne, WI	TRC: 223432.0000.0000 WisDOT: 6190-17-00
Photo No.	Date		
5			
Description			
Monitoring well with casing ready to be placed. Site 11.			

Photo No.	Date		
6			
Description			
Hollow stemmed auger at Site 11.			



Photographic Log

Client Name: Wisconsin Department of Transportation (WisDOT)		Site Location: STH 16 (2 nd Street to 2 nd Ave.) Winneconne, WI	Project No.: TRC: 223432.0000.0000 WisDOT: 6190-17-00
Photo No. 7	Date		
Description Completed monitoring well at Site 12.			

Photo No. 8	Date	
Description Installing monitoring well at Site 12.		

Appendix C

Soil Boring Logs/Well Construction/Development/ WDNR Borehole Filling and Sealing Forms

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number 6P-5-1/TW-5-1
Boring Drilled By OES (Tany)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TW-5-1	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
1	3.5 5.5			Concrete		1.3			0-2.5
				0.5'					
				clayey sand w/ trace gravel, loose, dry, no stains/odors		1.5			2.5-5
2	3.5			moist at 6'		0.9			5-7.5
						0.8			7.5-10
				8'					
3	2.5 5			clay, trace gravel, 10YR 4/2 - dark grayish brown, dense, plastic moist, no stains/odors		0.1			10-12.5
						0.1			12.5-15
				EOB @ 15'					
				sampled 2.5-5' and 10-12.5'					
				abandoned 9/17/14					

Logged By:

DM

Checked By:

20 OConnell

F-204A (R 12-94)

TW-5-1
DTW 4.67' TPVC
GS to TPVC 0.52'

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number GP-8-1/TRC-8-1
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted	Common Well Name TRC-8-1	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2306684.914 Northing 771877.4712 NW 1/4 of NE 1/4 of Section 21 T 19 N R 15 E		Local Grid Location (If applicable) Feet ☐ N ☐ E Feet ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
1	2 1/5			Asphalt - 0.5'		2.4			0-2.5
				Fill, sand + gravel, trace silt/fines, loose, non-plastic		1.3			2.5-5
2	2 1/5			4' Fill, organics, woodchips, small pieces of slag (2-4mm) <5%, slight odor, piece of glass, moist		12.6			5-7.5
				9' Clay w/ trace gravel, moist, no stains or odors, plastic, dense + stiff		21.2			7.5-10
3	3 1/5			10YR 4/2 - dark grayish brown		0.7			10-12.5
						0.5			12.5-15
				EOB @ 15' TRC-8-1 monitoring well installed sampled 5-7.5' and 12.5-15'					

Logged By: *DM*

Checked By: *Ad Alwell*

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STM 116		Start Date 9/17/14	End Date 9/17/14	Boring Number GS-8-2/TW-8-2
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted	Common Well Name TW-8-2	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15E		Easting 2306876.87 Northing 771814.365		Local Grid Location (if applicable) ☐ N ☐ E ☐ S ☐ W
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	1/5			Asphalt 0.5'		1.5			0-2.5
				Fill, sand + gravel, trace fines, loose, nonplastic, no stains/odors		1.2			2.5-5
2	2/5			5' Fill, organics, wood chips, small pieces of slag and glass (2-8mm) moist		1.0			5-7.5
				8.5' clay w/ trace gravel, plastic, dense moist, no stains/odors		10.8			7.5-10
3	25/5			10' R4/2 - dark grayish brown		2.3			10-12.5
						1.1			12.5-15
				EOB @ 15' sampled 2.5-5' and 7.5-10' Abandoned 9/17/14					

Logged By:

DM

Checked By:

Ed Connel

TW-8-2
DTW 4.81' TPVC
GS to TPVC = 0.25

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number 6P-8-3/TW-8-3
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted probe	Common Well Name TW-8-3	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane East ing 2306951.812 North ing 771796.3249 NW 1/4 of NE 1/4 of Section 21 T 19 N.R 15E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2.5/5			Topsoil 0.5'		0.2			0-2.5
				Fill, sand + gravel, trace fines, loose, nonplastic, no stains/odors		0.5			2.5-5
2	2.5/5			Wet at 5'		0.8			5-7.5
				7.0'		1.0			7.5-10
				Silty clay, dense, slightly plastic, 10YR 4/3 - dark brown, wet no stains/odors		0.9			10-12.5
3	5/5					1.1			12.5-15
				EOB @ 15' sampled 5-7.5' and 12.5-15' Abandoned 9/17/14					

Logged By:
DM

Checked By:
[Signature]

F-204A (R 12-94)

TW-8-3
DTW 3.81' TPVC
GS to TPVC = 1.21

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name 5TH 116	Start Date 9/17/14	End Date 9/17/14	Boring Number 6P-9-1/TW-9-1
Boring Drilled By OES (Tony)	Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TW-9-1	Initial Water Level -	Surface Elevation - Borehole Diameter 2 Inches
Boring Location State Plane Easting 238758.534 Northing 771892.1755 NW 1/4 of NE 1/4 of Section 21 T 19 N R 15 E		Local Grid Location (if applicable) ☐ N ☐ E Feet ☐ S Feet ☐ W	
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winnebago

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RDD/Comments
1	2 1/5			Fill, sand and gravel, loose, non-plastic, pale brown, moist at 4', no stains/odors		3.2			0-2.5
				slight odor @ ~4'		28.1			2.5-5
				- 5'					
2	3 1/5			Clay, trace gravel, plastic, moist no stains/odors, 205 YR 4/4 ~ reddish brown		4.3			5-7.5
						0.8			7.5-10
				EOB @ 10'					
				sampled 2.5'-5.0' and 7.5-10'					
				Abandoned 9/17/14					

Logged By:

DM

Checked By:

Checked By:  J. J. O'Connell

F-204A (R 12-94)

TW-9-1

DTW 4:31' TPVC

$$GS-TPVC = 1.25$$

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116 Start Date 9/17/14 End Date 9/17/14 Boring Number 6P-9-2/TW-9-2

Boring Drilled By OES (Tony) Drilling Method direct push

Drill Rig track mounted rig Common Well Name TW 9-2 Initial Water Level - Surface Elevation - Borehole Diameter 2 Inches

Boring Location State Plane Easting 2307697.532 Northing 771927.2522 Local Grid Location (if applicable) ☐ N ☐ E ☐ S ☐ W
NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E

County Winnebago State WI DNR County Code - Civil Town/City/ or Village Winneconne

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2.5			Fill, sand and gravel, trace fines, loose, brown, moist at 3', no stains/odors		1.1			0-2.5
						0.9			2.5-5
2	2.5			6' Clay, plastic, dense, 2.5YR 4/4 - reddish brown, moist, no stains or odors		0.7			5-7.5
						0.3			7.5-10
				FOB @ 10'					
				sampled 5-7.5' and 7.5-10'					
				abandoned 9/17/14					

Logged By:

DM

Checked By:

WJ O'Connell

F-204A (R 12-94) TW-9-2
DTW 2.89' TPVC
GS - TPVC = 0.00

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number GP-9-3/TW-9-3
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TW-9-3	Initial Water Level —	Surface Elevation —	Borehole Diameter 2 Inches
Boring Location State Plane Easting 230778,27 Northing 771952,321		Local Grid Location (If applicable)		
NW 1/4 of NE 1/4 of Section 21 T 19 N R 15 E		☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code —	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2.5			Fill, sand, gravel and fines, brown, loose, no stains/odors non-plastic		1.0			0-2.5
				moist @ 5'		0.9			2.5-5
2	2.5			8'		0.9			5-7.5
				Clay, plastic, trace gravel, dense + stiff, 2.5 YR 4/4 - reddish brown, moist		0.8			7.5-10
				EOB @ 10'					
				sampled 2.5-5' and 7.5-10'					
				abandoned 9/17/14					

Logged By: DM

Checked By: Ted O'Connell

TW-9-3
DTW 4.72' TPVC
TPVC-GS = 0.46

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number GP-9-4
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name GP-9-4	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2307828.057 Northing 72426.559 NW 1/4 of NE 1/4 of Section 21 T 19 N R 15 E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2 1/5			Concrete 0.5'		0.5			0-2.5
				Clay, trace gravel, plastic, dense and stiff, dry, no stains or odors		0.6			2.5-5
2	4 1/5			2.5 YR 4/4 reddish brown moist at 8'		0.9			5-7.5
						1.2			7.5-10
3	5 1/5					1.1			10-12.5
						1.2			12.5-15
				EOB @ 15' sampled 5-7.5' and 10-12.5' Temp well was dry Abandoned 9/17/14					

Logged By:

DM

Checked By:

RD OConnell

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/17/14	End Date 9/17/14	Boring Number GP-11-1/TRC-11-1
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig Track mounted rig	Common Well Name TRC - 11-1	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winnebago	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2.5 5			Driveway Gravel + Sand 0.5'		0.8			0-2.5
				Silty Sand, trace gravel, 10YR 4/4 - dark yellowish brown, loose non-plastic, no stains/odors		1.1			2.5-5
2	3/5			5.5'		1.0			5-7.5
				Clay, semi-plastic, dense, trace gravel, moist, no stains/odors 2.5YR 4/4 - reddish brown		1.7			7.5-10
3	3/5					0.8			10-12.5
						0.8			12.5-15
				EOB @ 15' TRC-11-1 monitoring well installed sampled 2.5-5' and 7.5-10'					

Logged By:

DM

Checked By:

Ed O'Connell

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/18/14	End Date 9/18/14	Boring Number GP-11-2 / TRC-11-2
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TRC-11-2	Initial Water Level —	Surface Elevation —	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2307950.168 Northing 771963.8708		Local Grid Location (if applicable) ☐ N ☐ E ☐ S ☐ W		
NW 1/4 of NE 1/4 of Section 21 T 19 N.R. 15E		Feet ☐ S Feet ☐ W		
County Winnebago	State WI	DNR County Code —	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
1	2 1/2			Concrete 0.5'		0.5			0-2.5
				Silty clay, plastic, dry, no stains/ odors, dense, cohesive 2.5 YR 4/4 reddish brown		2.6			2.5-5
2	3 1/2			moist sand 6'		1.1			5-7.5
						1.0			7.5-10
3	5 1/2			Angular pieces of gravel 5-12 mm @ 10-12' rust colored staining @ 12-15'		6.7			10-12.5
						10.7			12.5-15
				ECB @ 15'					
				TRC-11-2 monitoring well installed sampled 2.5-5' and 12.5-15'					

Logged By: *DM*

Checked By: *Ed O'Connell*

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name SCH 116		Start Date 7/18/14	End Date 9/18/14	Boring Number GP-11-3/TRC-11-3
Boring Drilled By ORS (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TRC-11-3	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane Easting 230772.1 Northing 77182.4306 NW 1/4 of NE 1/4 of Section 21 T 14 N R 15 E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	2 5/5			Topsoil 0.5'		1.3			0-2.5
				Silty Sand, trace fines, 10YR 4/4 - dark yellowish brown, loose, non-plastic black staining 0-2'		2.0			2.5-5
2	4 1/5			silt and clay (fines) increase w/ depth 6'		4.3			5-7.5
				Clay, plastic, moist, dense, 10YR 4/3 - dark brown, trace gravel no stains/odors		4.2			7.5-10
3	4 1/5					4.0			10-12.5
						6.1			12.5-15
				EOB @ 15' TRC-11-3 monitoring well installed sampled 5-7.5' and 12.5-15'					

Logged By: *AM*

Checked By: *Red O'Connell*

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STM 116		Start Date 9/18/14	End Date 9/18/14	Boring Number GP-12-1/TRC-12-1
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TRC-12-1	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2308053.639 Northing 771633.9928		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E		Feet ☐ S Feet ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	4 1/5			Topsoil		1.3			0-2.5'
				2'					
				Clay, trace gravel, plastic, dense, no stains/odors, 10YR 5/4 yellowish brown		1.8			2.5-5'
2	4 1/5					1.1			5-7.5'
				rust colored stains 8-10'					
				gravel content increases w/ depth		2.7			7.5-10'
3	5 1/5					4.1			10-12.5'
						6.2			12.5-15'
				EOB @ 15'					
				TRC-12-1 monitoring well installed sampled 2.5-5' and 12.5-15'					

Logged By: DM

Checked By: [Signature]

TRC Field Soil Boring Log Information

TRC Project No: 223432

Page 1 of 1

Project Name STH 116		Start Date 9/18/14	End Date 9/18/14	Boring Number 6P-12-2 / TRC-12-2
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted rig	Common Well Name TRC-12-2	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
County Winnebago	State WI	DNR County Code -	Civil Town/City/ or Village Winneconne	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PTD/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	3/5			Concrete 0.5'		0.6			0-2.5
				Sandy Clay, plastic, no stains/odors moderately dense, 10YR 5/4-yellowish brown		1.2			2.5-5
2	5/5			trace gravel 6-15'		1.6			5-7.5
				rust colored staining from 8-10'		1.5			7.5-10
3	4/5			moist at 12.5'		2.2			10-12.5
						2.7			12.5-15
				EOB @ 15' TRC-12-2 monitoring well installed sampled 5-7.5' and 12.5-15'					

Logged By: DM

Checked By: [Signature]

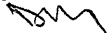
TRC Field Soil Boring Log Information

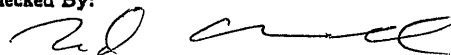
TRC Project No: 223432

Page 1 of 2

Project Name STH 116		Start Date 9/18/14	End Date 9/18/14	Boring Number GP-12-3/TRC-12-3
Boring Drilled By OES (Tony)		Drilling Method Direct push		
Drill Rig rock mounted rig	Common Well Name TRC-12-3	Initial Water Level -	Surface Elevation -	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2308647.73 Northing 7719667036		Local Grid Location (If applicable) ☐ N ☐ E ☐ S ☐ W		
NW 1/4 of NE 1/4 of Section 21 T 19 N, R 15 E				
County Winnebago	State WI	DNR County Code →	Civil Town/City/ or Village Winnebago	

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
1	4 1/5			Topsoil - 0.5'		1.5			0-2.5
				clayey sand, loose, slightly plastic, dry, 10YR 3/1 - very dark gray, some light discolorations throughout 10YR 6/3 - pale brown		0.8			2.5-5
2	5 1/5			moist at 3'		1.6			5-7.5
				6' clay, plastic, 10YR 5/4 - yellowish brown, moist, dense and stiff no stains/ odors		1.7			7.5-10
3	2 1/5			slight odor at 12'		64.2			10-12.5
						110.1			12.5-15

Logged By: 

Checked By: 

TRC Field Soil Boring Log Information

TRC Project No:

Page 2 of 2

Project Name STH 116		Start Date 9/18/14	End Date 9/18/14	Boring Number 68-12-3/TRC-12-3
Boring Drilled By OES (Tony)		Drilling Method Direct Push		
Drill Rig track mounted geoprobe	Common Well Name TRC-12-3	Initial Water Level —	Surface Elevation —	Borehole Diameter 2 Inches
Boring Location State Plane Easting 2308047.736 Northing 771966.7036 NW 1/4 of NE 1/4 of Section 21 T 19 N R 15 E			Local Grid Location (If applicable) ☐ N ☐ E Feet ☐ S Feet ☐ W	
County Winnebago	State WI	DNR County Code	Civil Town/City/ or Village Winneconne	

[illegible]

Logged By: 

Checked By: 

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name <u>STH 116</u>	Local Grid Location of Well ft. ☐ N. ☐ E. ☐ S. ☐ W.	Well Name <u>TRC-8-1</u>
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. _____ "Long. _____ or _____	Wis. Unique Well No. <u>02274</u> DNR Well ID No. _____
Facility ID	St. Plane <u>771877.4712</u> ft. N, <u>2306684.914</u> ft. E. S/C/N	Date Well Installed <u>09/17/2014</u> m m d d y y y y
Type of Well Well Code <u>11</u> / <u>MW</u>	Section Location of Waste/Source <u>NW 1/4 of NE 1/4 of Sec 21, T. 19 N, R. 15 E</u>	Well Installed By: Name (first, last) and Firm <u>Tony Kapugi</u> <u>OES</u>
Distance from Waste/Source _____ ft.	Enf. Stds. Apply ☐	Gov. Lot Number _____
	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation 750.85 ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom 749.35 ft. MSL or 1.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

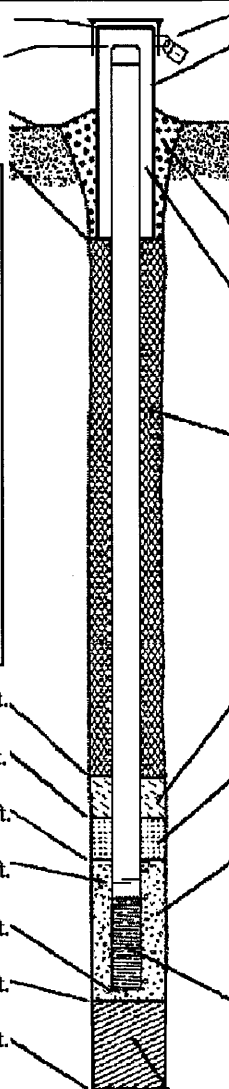
14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Geoprobe Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top 749.35 ft. MSL or 1.5 ft.
F. Fine sand, top 747.85 ft. MSL or 3 ft.
G. Filter pack, top 747.35 ft. MSL or 3.5 ft.
H. Screen joint, top 746.85 ft. MSL or 4.0 ft.
I. Well bottom 736.85 ft. MSL or 14.0 ft.
J. Filter pack, bottom 735.85 ft. MSL or 15.0 ft.
K. Borehole, bottom 735.85 ft. MSL or 15 ft.
L. Borehole, diameter 8.0 in.
M. O.D. well casing 2.38 in.
N. I.D. well casing 2.07 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 04
Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐

4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight Bentonite slurry ☐ 31
d. _____ % Bentonite Bentonite-cement grout ☐ 50
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Unimin Silica Sand
b. Volume added 0.16 ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. Coarse Sand
b. Volume added 3.68 ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14
Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH 116</u>	County Name <u>Winnebago</u>	Well Name <u>TRC-8-1</u>
Facility License, Permit or Monitoring Number	County Code <u>51</u>	Wis. Unique Well Number <u>07274</u>
		DNR Well ID Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- ☐ 41 surged with bailer and bailed
☐ 61 surged with bailer and pumped
☐ 42 surged with block and bailed
☐ 62 surged with block and pumped
☐ 70 surged with block, bailed and pumped
☐ 20 compressed air
☐ 10 bailed only
☒ 51 pumped only
☐ 50 pumped slowly
☐ Other _____

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 13.05 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.5 gal.

7. Volume of water removed from well 18.0 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water
(from top of well casing)

a. 3.76 ft. 3.76 ft.

Date

b. 09/19/2014 09/19/2014
m m d d y y y y m m d d y y y y

Time

c. 8:00 a.m. 8:30 a.m.
p.m. p.m.

12. Sediment in well
bottom

— inches — inches

13. Water clarity

Clear ☐ 10 Clear ☒ 20

Turbid ☒ 15 Turbid ☐ 25

(Describe)

(Describe)

light brown

clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended _____ mg/l _____ mg/l
solids

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapugi

Firm: On-site Environmental

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Kathie Last Name: Van Price

Facility/Firm: WisDOT

Street: 944 Vanderperren Way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

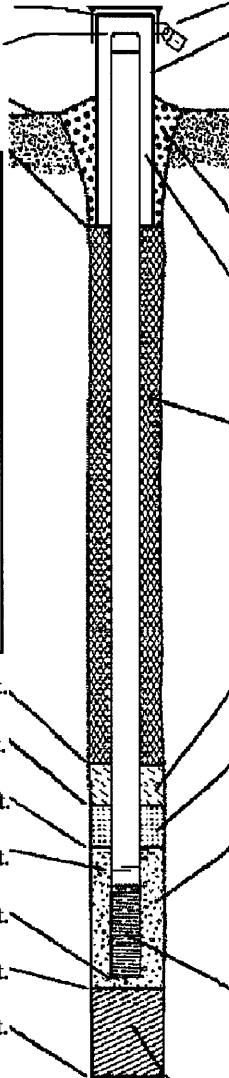
Signature: [Signature]

Print Name: David Mills

Firm: TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name STH 116	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.		Well Name TRC-11-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. 07275	DNR Well ID No.
Facility ID	Lat. "Long. " or	Date Well Installed 09/18/2014 m m d d y y y y	
Type of Well Well Code 11 / MW	Section Location of Waste/Source NW 1/4 of NE 1/4 of Sec. 21, T. 19 N, R. 15 E	Well Installed By: Name (first, last) and Firm Tony Kapugi OES	
Distance from Waste/Source ft.	Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation --- ft. MSL B. Well casing, top elevation 756.88 ft. MSL C. Land surface elevation --- ft. MSL D. Surface seal, bottom 754.88 ft. MSL or 1.5 ft. 12. USCS classification of soil near screen: GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐ Bedrock ☐ 13. Sieve analysis performed? ☐ Yes ☒ No 14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 Gasprobe Other ☐ 15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99 16. Drilling additives used? ☐ Yes ☒ No Describe _____ 17. Source of water (attach analysis, if required): _____ E. Bentonite seal, top 754.88 ft. MSL or 1.5 ft. F. Fine sand, top 752.38 ft. MSL or 4.0 ft. G. Filter pack, top 751.38 ft. MSL or 5.0 ft. H. Screen joint, top 749.38 ft. MSL or 7.0 ft. I. Well bottom 739.38 ft. MSL or 17.0 ft. J. Filter pack, bottom 738.89 ft. MSL or 17.5 ft. K. Borehole, bottom 738.89 ft. MSL or 17.5 ft. L. Borehole, diameter 8.0 in. M. O.D. well casing 2.38 in. N. I.D. well casing 2.07 in.	 1. Cap and lock? ☒ Yes ☐ No 2. Protective cover pipe: a. Inside diameter: 8.0 in. b. Length: 1.0 ft. c. Material: Steel ☒ 04 Other ☐ d. Additional protection? ☐ Yes ☒ No If yes, describe: _____ 3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ 4. Material between well casing and protective pipe: Bentonite ☐ 30 Other ☐ 5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35 c. _____ Lbs/gal mud weight ... Bentonite slurry ☐ 31 d. _____ % Bentonite ... Bentonite-cement grout ☐ 50 e. _____ Ft³ volume added for any of the above f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08 6. Bentonite seal: a. Bentonite granules ☐ 33 b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 c. _____ Other ☐ 7. Fine sand material: Manufacturer, product name & mesh size a. Unimin Silica Sand b. Volume added 0.32 ft³ 8. Filter pack material: Manufacturer, product name & mesh size a. Coarse Sand b. Volume added 4.6 ft³ 9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ 10. Screen material: PVC a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ b. Manufacturer Monoflex c. Slot size: 0.01 in. d. Slotted length: 1.0 ft. 11. Backfill material (below filter pack): None ☒ 14 Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm **TRC**

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH 116</u>	County Name <u>Winnebago</u>	Well Name <u>TRC-11-1</u>
Facility License, Permit or Monitoring Number	County Code <u>71</u>	Wis. Unique Well Number <u>02275</u>
		DNR Well ID Number _____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- ☐ 41 surged with bailer and bailed
☐ 61 surged with bailer and pumped
☐ 42 surged with block and bailed
☐ 62 surged with block and pumped
☐ 70 surged with block, bailed and pumped
☐ 20 compressed air
☐ 10 bailed only
☒ 51 pumped only
☐ 50 pumped slowly
☐ Other _____

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 16.93 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.8 gal.

7. Volume of water removed from well 8.0 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>5.85</u> ft.	<u>Dry</u> ft.
Date	b. <u>09/19/2014</u> m m d d y y y y	<u>09/19/2014</u> m m d d y y y y
Time	c. <u>8:45</u> ☒ a.m. ☐ p.m.	<u>9:15</u> ☒ a.m. ☐ p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) <u>light brown</u>	Clear ☐ 20 Turbid ☐ 25 (Describe) <u>clear</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapuyi
Firm: On-site Environmental

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Kathie Last Name: Van Price

Facility/Firm: Wis DOT

Street: 944 Vanderperren Way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: David Mills

Firm: TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name <u>STN 116</u>	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.	Well Name <u>TRC-11-2</u>
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. _____ "Long. _____ or _____	Wis. Unique Well No. <u>02276</u> DNR Well ID No. _____
Facility ID	St. Plane <u>71963.47</u> ft. N, <u>230750.168</u> ft. E. S/C/N	Date Well Installed <u>8/18/2014</u> m m d d y y y y
Type of Well Well Code <u>11 / MW</u>	Section Location of Waste/Source <u>NW 1/4 of NE 1/4 of Sec. 21 T. 19 N. R. 15 E</u>	Well Installed By: Name (first, last) and Firm <u>Tony Kaguni</u> <u>OES</u>
Distance from Waste/Source _____ ft.	Enf. Stds. Apply ☐	
	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? ☒ Yes ☐ No
B. Well casing, top elevation <u>758.52</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>8.6</u> in. b. Length: <u>1.0</u> ft. c. Material: Steel ☒ 04 Other ☐
C. Land surface elevation _____ ft. MSL	d. Additional protection? ☐ Yes ☒ No If yes, describe: _____
D. Surface seal, bottom <u>757.02</u> ft. MSL or <u>1.5</u> ft.	3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐
12. USCS classification of soil near screen: GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐ Bedrock ☐	4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐
13. Sieve analysis performed? ☐ Yes ☒ No	5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35 c. _____ Lbs/gal mud weight ... Bentonite slurry ☐ 31 d. _____ % Bentonite ... Bentonite-cement grout ☐ 50 e. _____ Ft ³ volume added for any of the above f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 <u>Geoprobe</u> Other ☐	6. Bentonite seal: a. Bentonite granules ☐ 33 b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 c. _____ Other ☐
15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99	7. Fine sand material: Manufacturer, product name & mesh size a. <u>Unimin Silica Sand</u> b. Volume added <u>3.1</u> ft ³
16. Drilling additives used? ☐ Yes ☒ No	8. Filter pack material: Manufacturer, product name & mesh size a. <u>Coarse Sand</u> b. Volume added <u>4.0</u> ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐
17. Source of water (attach analysis, if required): _____	10. Screen material: <u>PVC</u> a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
E. Bentonite seal, top <u>757.02</u> ft. MSL or <u>1.5</u> ft.	b. Manufacturer <u>Monoflex</u> c. Slot size: <u>0.01</u> in. d. Slotted length: <u>10</u> ft.
F. Fine sand, top <u>754.27</u> ft. MSL or <u>4.25</u> ft.	11. Backfill material (below filter pack): None ☒ 14 Other ☐
G. Filter pack, top <u>752.52</u> ft. MSL or <u>6.0</u> ft.	
H. Screen joint, top <u>755.52</u> ft. MSL or <u>8.0</u> ft.	
I. Well bottom <u>740.92</u> ft. MSL or <u>18.0</u> ft.	
J. Filter pack, bottom <u>740.02</u> ft. MSL or <u>18.5</u> ft.	
K. Borehole, bottom <u>740.02</u> ft. MSL or <u>18.5</u> ft.	
L. Borehole, diameter <u>3.6</u> in.	
M. O.D. well casing <u>2.38</u> in.	
N. I.D. well casing <u>2.07</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH 116</u>	County Name <u>Winnebago</u>	Well Name <u>TRC-11-2</u>
Facility License, Permit or Monitoring Number	County Code <u>31</u>	Wis. Unique Well Number <u>02276</u>
		DNR Well ID Number _____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- ☐ surged with bailer and bailed 41
☐ surged with bailer and pumped 61
☐ surged with block and bailed 42
☐ surged with block and pumped 62
☐ surged with block, bailed and pumped 70
☐ compressed air 20
☐ bailed only 10
☒ pumped only 51
☐ pumped slowly 50
☐ Other

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 17.55 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.8 gal.

7. Volume of water removed from well 8.0 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added →

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water
(from top of well casing)

a. 6.74 ft. Dry ft.

Date

b. 09/19/2014 09/19/2014
m m d d y y y y m m d d y y y y

Time

c. 9:20 ☒ a.m. 9:50 ☒ a.m.
☐ p.m. ☐ p.m.

12. Sediment in well
bottom

_____ inches _____ inches

13. Water clarity

Clear ☐ 10 Clear ☒ 20

Turbid ☒ 15 Turbid ☐ 25

(Describe)

(Describe)

light brown

clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended _____ mg/l _____ mg/l
solids

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapug

Firm: On-site Environmental

Name and Address of Facility Contact /Owner/Responsible Party

First Name: Kathie Last Name: Don Price

Facility/Firm: Wis DOD

Street: 944 Vanderpennen way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: Daniel MINS

Firm: TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name <u>STH 116</u>	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.		Well Name <u>TRC-11-3</u>
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. <u>02277</u>	DNR Well ID No.
Facility ID	Lat. _____ "Long. _____"	Date Well Installed <u>8/18/2014</u> m m d d y y y y	
Type of Well Well Code <u>11 / MW</u>	Section Location of Waste/Source <u>NW 1/4 of NE 1/4 of Sec. 21, T. 19 N, R. 15 E</u>	Well Installed By: Name (first, last) and Firm <u>Tony Kapugi</u> <u>OES</u>	
Distance from Waste/Source _____ ft.	Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation 758.74 ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom 757.24 ft. MSL or 1.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

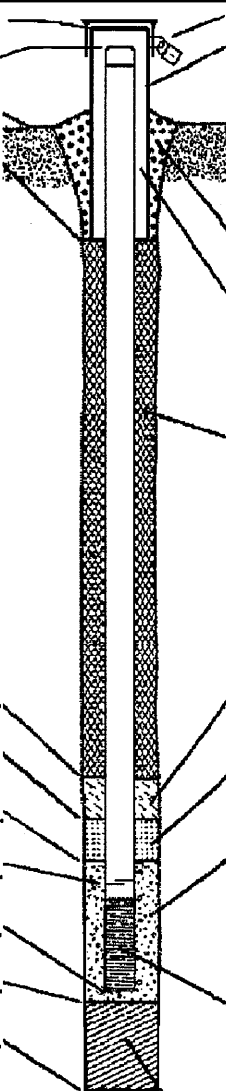
14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Casing rope Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top 757.24 ft. MSL or 1.5 ft.
F. Fine sand, top 754.74 ft. MSL or 4.0 ft.
G. Filter pack, top 754.24 ft. MSL or 4.5 ft.
H. Screen joint, top 752.74 ft. MSL or 6.0 ft.
I. Well bottom 742.74 ft. MSL or 16.0 ft.
J. Filter pack, bottom 742.24 ft. MSL or 16.5 ft.
K. Borehole, bottom 742.24 ft. MSL or 16.5 ft.
L. Borehole, diameter 8.0 in.
M. O.D. well casing 21.38 in.
N. I.D. well casing 21.07 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 04
Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☒ 30
Concrete ☒ 01
Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ 30
Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight Bentonite slurry ☐ 31
d. _____ % Bentonite Bentonite-cement grout ☐ 50
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. Unimin Silica Sand
b. Volume added 0.16 ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. Coarse Sand
b. Volume added 4.0 ft³
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐
10. Screen material: PVC
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14
Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH-116</u>	County Name <u>Waukesha</u>	Well Name <u>TRC-11-3</u>
Facility License, Permit or Monitoring Number	County Code <u>25</u>	Wis. Unique Well Number <u>02277</u>
		DNR Well ID Number _____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- ☐ 41 surged with bailer and bailed
☐ 61 surged with bailer and pumped
☐ 42 surged with block and bailed
☐ 62 surged with block and pumped
☐ 70 surged with block, bailed and pumped
☐ 20 compressed air
☐ 10 bailed only
☒ 51 pumped only
☐ 50 pumped slowly
☐ Other _____

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 15.90 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.2 gal.

7. Volume of water removed from well 6.0 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water
(from top of well casing)

a. 8.54 ft. Dry ft.

Date

b. 09/19/2014 09/19/2014
m m d d y y y y m m d d y y y y

Time

c. 10:00 ☒ a.m. 10:30 ☒ p.m.

12. Sediment in well bottom

2 inches 2 inches

13. Water clarity

Clear ☐ 10 Clear ☒ 20

Turbid ☒ 15 Turbid ☐ 25

(Describe)

light brown

(Describe)

clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended _____ mg/l _____ mg/l
solids

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapugi

Firm: On-site Environmental

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Kathie Last Name: VanPice

Facility/Firm: Wis DOT

Street: 944 Vander Pieren Way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

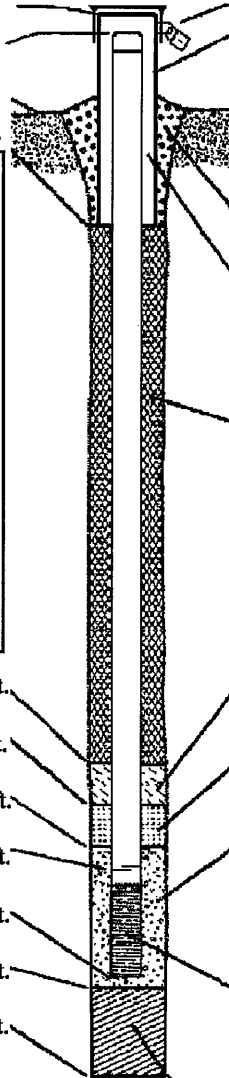
Signature: [Signature]

Print Name: David Mills

Firm: TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name STH 116	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.		Well Name TRC-12-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. 07278	DNR Well ID No.
Facility ID	Lat. _____ " Long. _____ " or	Date Well Installed 09/18/2014	
Type of Well Well Code W1 / MW	St. Plane 77°53'49.23" N, 23°08'05.3639" E. S/C/N	Well Installed By: Name (first, last) and Firm Tony Kapugi OES	
Distance from Waste/Source _____ ft.	Enf. Stds. Apply ☐	Section Location of Waste/Source NW 1/4 of NE 1/4 of Sec. 2, T. 19 N. R. 15 E	
	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL B. Well casing, top elevation 760.77 ft. MSL C. Land surface elevation _____ ft. MSL D. Surface seal, bottom 759.27 ft. MSL or 1.5 ft. 12. USCS classification of soil near screen: GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐ Bedrock ☐ 13. Sieve analysis performed? ☐ Yes ☒ No 14. Drilling method used: Rotary ☐ 50 Geoprobe Hollow Stem Auger ☒ 41 Other ☐ 15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99 16. Drilling additives used? ☐ Yes ☒ No Describe _____ 17. Source of water (attach analysis, if required): _____ E. Bentonite seal, top 759.27 ft. MSL or 1.5 ft. F. Fine sand, top 756.77 ft. MSL or 4.0 ft. G. Filter pack, top 756.27 ft. MSL or 4.5 ft. H. Screen joint, top 753.77 ft. MSL or 7.0 ft. I. Well bottom 743.77 ft. MSL or 17.0 ft. J. Filter pack, bottom 743.27 ft. MSL or 17.5 ft. K. Borehole, bottom 743.27 ft. MSL or 17.5 ft. L. Borehole, diameter 8.6 in. M. O.D. well casing 2.38 in. N. I.D. well casing 2.07 in.	 1. Cap and lock? ☒ Yes ☐ No 2. Protective cover pipe: a. Inside diameter: 8.6 in. b. Length: 10 ft. c. Material: Steel ☒ 04 Other ☐ d. Additional protection? ☐ Yes ☐ No If yes, describe: _____ 3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ 4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ 5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35 c. _____ Lbs/gal mud weight Bentonite slurry ☐ 31 d. _____ % Bentonite Bentonite-cement grout ☐ 50 e. _____ Ft³ volume added for any of the above f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08 6. Bentonite seal: a. Bentonite granules ☐ 33 b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 c. _____ Other ☐ 7. Fine sand material: Manufacturer, product name & mesh size a. Unimin Silica Sand b. Volume added 0.16 ft³ 8. Filter pack material: Manufacturer, product name & mesh size a. Coarse Sand b. Volume added 4.16 ft³ 9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ 10. Screen material: PVC a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ b. Manufacturer Monoflex c. Slot size: 0.01 in. d. Slotted length: 10 ft. 11. Backfill material (below filter pack): None ☒ 14 Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 

Firm **TRC**

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH 116</u>	County Name <u>Winnebago</u>	Well Name <u>TRC-12-1</u>
Facility License, Permit or Monitoring Number	County Code <u>71</u>	Wis. Unique Well Number <u>02278</u>
		DNR Well ID Number ---

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- ☐ 41 surged with bailer and bailed
☐ 61 surged with bailer and pumped
☐ 42 surged with block and bailed
☐ 62 surged with block and pumped
☐ 70 surged with block, bailed and pumped
☐ 20 compressed air
☐ 10 bailed only
☒ 51 pumped only
☐ 50 pumped slowly
☐ Other

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 17.55 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.0 gal.

7. Volume of water removed from well 4.0 gal.

8. Volume of water added (if any) 2 gal.

9. Source of water added ---

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water
(from top of well casing)

a. 11.05 ft. Dry ft.

Date

b. 09/19/2014 09/19/2014
m m d d y y y y m m d d y y y y

Time

c. 10:35 a.m. 11:05 a.m.
☐ p.m. ☒ p.m.

12. Sediment in well
bottom

--- inches --- inches

13. Water clarity

Clear ☐ 10 Clear ☒ 20

Turbid ☒ 15 Turbid ☐ 25

(Describe)

light brown

(Describe)

clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended --- mg/l --- mg/l
solids

15. COD --- mg/l --- mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapugi

Firm: On-site Environmental

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Rathle Last Name: Van Price

Facility/Firm: WisDOT

Street: 944 Vanderperren Way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

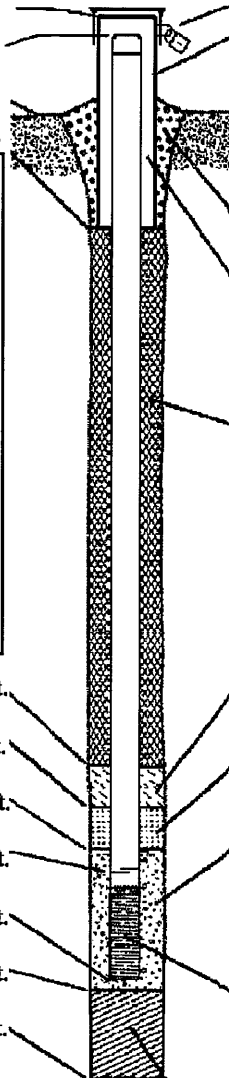
Print Name: David Mills

Firm: TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name <u>STH 116</u>	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.	Well Name <u>TRC-12-2</u>
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. <u>02279</u> DNR Well ID No.
Facility ID	Lat. <u>44° 19' 15.79" N</u> Long. <u>89° 18' 10.56" W</u>	Date Well Installed <u>09/18/2014</u>
Type of Well Well Code <u>11 / MW</u>	Section Location of Waste/Source <u>NW 1/4 of NE 1/4 of Sec. 21, T. 19 N, R. 15 E</u>	Well Installed By: Name (first, last) and Firm <u>Tony Kapugi</u> <u>OES</u>
Distance from Waste/Source <u> </u> ft.	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation <u> </u> ft. MSL B. Well casing, top elevation <u>762.13</u> ft. MSL C. Land surface elevation <u> </u> ft. MSL D. Surface seal, bottom <u>760.63</u> ft. MSL or <u>1.5</u> ft. 12. USCS classification of soil near screen: GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐ Bedrock ☐ 13. Sieve analysis performed? ☐ Yes ☒ No 14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 <u>Geoprobe</u> Other ☐ 15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99 16. Drilling additives used? ☐ Yes ☒ No Describe <u> </u> 17. Source of water (attach analysis, if required): <u> </u> E. Bentonite seal, top <u>760.63</u> ft. MSL or <u>1.5</u> ft. F. Fine sand, top <u>758.13</u> ft. MSL or <u>4.0</u> ft. G. Filter pack, top <u>757.13</u> ft. MSL or <u>5.0</u> ft. H. Screen joint, top <u>755.13</u> ft. MSL or <u>7.0</u> ft. I. Well bottom <u>745.13</u> ft. MSL or <u>17.0</u> ft. J. Filter pack, bottom <u>744.63</u> ft. MSL or <u>17.5</u> ft. K. Borehole, bottom <u>744.63</u> ft. MSL or <u>17.5</u> ft. L. Borehole, diameter <u>8.0</u> in. M. O.D. well casing <u>21.38</u> in. N. I.D. well casing <u>21.07</u> in.	 1. Cap and lock? ☒ Yes ☐ No 2. Protective cover pipe: a. Inside diameter: <u>8.6</u> in. b. Length: <u>1.0</u> ft. c. Material: Steel ☒ 04 Other ☐ d. Additional protection? ☐ Yes ☒ No If yes, describe: <u> </u> 3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ 4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ 5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33 b. <u> </u> Lbs/gal mud weight... Bentonite-sand slurry ☐ 35 c. <u> </u> Lbs/gal mud weight... Bentonite slurry ☐ 31 d. <u> </u> % Bentonite... Bentonite-cement grout ☐ 50 e. <u> </u> Ft³ volume added for any of the above f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08 6. Bentonite seal: a. Bentonite granules ☐ 33 b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 c. Other ☐ 7. Fine sand material: Manufacturer, product name & mesh size a. <u>Unimin Silver Sand</u> b. Volume added <u>0.32</u> ft³ 8. Filter pack material: Manufacturer, product name & mesh size a. <u>Coarse sand</u> b. Volume added <u>4.0</u> ft³ 9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ 10. Screen material: <u>PVC</u> a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ b. Manufacturer <u>Monoflex</u> c. Slot size: <u>0.01</u> in. d. Slotted length: <u>10</u> ft. 11. Backfill material (below filter pack): None ☒ 14 Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature]

Firm TRC

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name STH 116	County Name Winnebago	Well Name TRC-12-2
Facility License, Permit or Monitoring Number	County Code 71	Wis. Unique Well Number 02279
		DNR Well ID Number

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- ☐ 41 surged with bailer and bailed
☐ 61 surged with bailer and pumped
☐ 42 surged with block and bailed
☐ 62 surged with block and pumped
☐ 70 surged with block, bailed and pumped
☐ 20 compressed air
☐ 10 bailed only
☒ 51 pumped only
☐ 50 pumped slowly
☐ Other

3. Time spent developing well **30** min.

4. Depth of well (from top of well casing) **17.25** ft.

5. Inside diameter of well **2.07** in.

6. Volume of water in filter pack and well casing **14** gal.

7. Volume of water removed from well **6.0** gal.

8. Volume of water added (if any) **—** gal.

9. Source of water added **—**

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water (from top of well casing)
 a. **8.95** ft. **Dry** ft.
 Date **09/19/2014** **09/19/2014**
 m m d d y y y y m m d d y y y y
 Time **11:10** ☒ a.m. **11:40** ☒ a.m.
☐ p.m. ☐ p.m.

12. Sediment in well bottom **—** inches **—** inches

13. Water clarity Clear ☐ 10 Turbid ☒ 15
 (Describe) **brown** **clear**
☐ 20 ☐ 25
 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids **—** mg/l **—** mg/l

15. COD **—** mg/l **—** mg/l

16. Well developed by: Name (first, last) and Firm

First Name: **Tony** Last Name: **Kapugi**
 Firm: **On-site Environmental**

Name and Address of Facility Contact /Owner/Responsible Party

First Name: **Kathie** Last Name: **Van Price**

Facility/Firm: **Wis DOT**

Street: **944 Vanderperren Way**

City/State/Zip: **Green Bay, WI 54304**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **[Signature]**

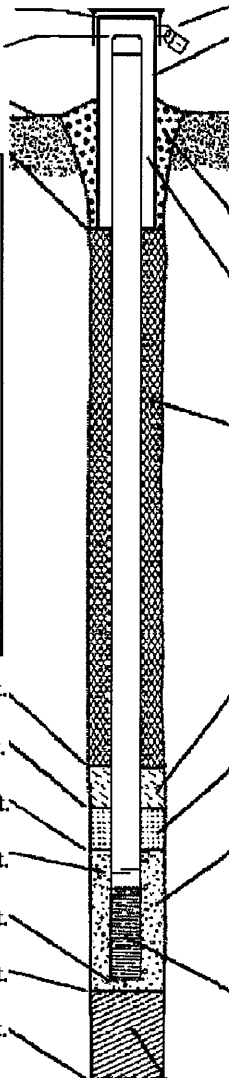
Print Name: **David Mills**

Firm: **TRC**

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name STH-116	Local Grid Location of Well ft. ☐ N. ☐ S. ☐ E. ☐ W.	Well Name TRC-12-3
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. 02280 DNR Well ID No.
Facility ID	Lat. _____ "Long. _____ or _____	Date Well Installed 8/18/2014
Type of Well Well Code 11 / WW	St. Plane 771966.7034 ft. N, 2302047.13 ft. E. S/C/N	Well Installed By: Name (first, last) and Firm
Distance from Waste/Source _____ ft.	Section Location of Waste/Source NW 1/4 of NE 1/4 of Sec 21, T. 19 N, R. 15 E	
Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	
	Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL B. Well casing, top elevation 761.06 ft. MSL C. Land surface elevation _____ ft. MSL D. Surface seal, bottom 759.56 ft. MSL or 1.5 ft. 12. USCS classification of soil near screen: GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐ Bedrock ☐ 13. Sieve analysis performed? ☐ Yes ☐ No 14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 <i>Geoprobe</i> Other ☐ 15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99 16. Drilling additives used? ☐ Yes ☒ No Describe _____ 17. Source of water (attach analysis, if required): _____ E. Bentonite seal, top 759.56 ft. MSL or 1.5 ft. F. Fine sand, top 757.06 ft. MSL or 4.0 ft. G. Filter pack, top 756.06 ft. MSL or 5.0 ft. H. Screen joint, top 754.06 ft. MSL or 7.0 ft. I. Well bottom 744.06 ft. MSL or 17.0 ft. J. Filter pack, bottom 744.06 ft. MSL or 17.0 ft. K. Borehole, bottom 736.06 ft. MSL or 25 ft. L. Borehole, diameter 8.0 in. M. O.D. well casing 238 in. N. I.D. well casing 2.07 in.	 1. Cap and lock? ☒ Yes ☐ No 2. Protective cover pipe: a. Inside diameter: 8.0 in. b. Length: 1.0 ft. c. Material: Steel ☒ 04 Other ☐ d. Additional protection? ☐ Yes ☐ No If yes, describe: _____ 3. Surface seal: Bentonite ☐ 30 Concrete ☒ 01 Other ☐ 4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ 5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35 c. _____ Lbs/gal mud weight . . . Bentonite slurry ☐ 31 d. _____ % Bentonite Bentonite-cement grout ☐ 50 e. _____ Ft³ volume added for any of the above f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08 6. Bentonite seal: a. Bentonite granules ☐ 33 b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 c. _____ Other ☐ 7. Fine sand material: Manufacturer, product name & mesh size a. <i>unimin Silica Sand</i> b. Volume added 0.32 ft³ 8. Filter pack material: Manufacturer, product name & mesh size a. <i>Coarse Sand</i> b. Volume added 4.0 ft³ 9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ 10. Screen material: <i>PVC</i> a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ b. Manufacturer <i>Monoflex</i> c. Slot size: 0.01 in. d. Slotted length: 10 ft. 11. Backfill material (below filter pack): None ☐ 14 <i>Coarse Sand</i> Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *[Signature]* Firm **TRC**

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name <u>STH 116</u>	County Name <u>Winnebago</u>	Well Name <u>TRC-12-3</u>
Facility License, Permit or Monitoring Number	County Code <u>71</u>	Wis. Unique Well Number <u>02280</u>
		DNR Well ID Number <u>---</u>

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- surged with bailer and bailed ☐ 41
surged with bailer and pumped ☐ 61
surged with block and bailed ☐ 42
surged with block and pumped ☐ 62
surged with block, bailed and pumped ☐ 70
compressed air ☐ 20
bailed only ☐ 10
pumped only ☒ 51
pumped slowly ☐ 50
Other ☐

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 17.30 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 1.6 gal.

7. Volume of water removed from well 7.0 gal.

8. Volume of water added (if any) --- gal.

9. Source of water added ---

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

Before Development After Development

11. Depth to Water
(from top of well casing)

a. 7.68 ft. Dry ft.

Date

b. 09/19/2014 09/19/2014
m m d d y y y y m m d d y y y y

Time

c. 11:45 ☒ a.m. 12:15 ☒ p.m.

12. Sediment in well
bottom

--- inches --- inches

13. Water clarity

Clear ☐ 10

Turbid ☒ 15

(Describe)

brown

Clear ☒ 20

Turbid ☐ 25

(Describe)

clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended --- mg/l --- mg/l
solids

15. COD --- mg/l --- mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Tony Last Name: Kapugi

Firm: On-site Environmental

Name and Address of Facility Contact /Owner/Responsible Party

First Name: Kathie Last Name: Von Price

Facility/Firm: WisDOT

Street: 944 Vanderpennen Way

City/State/Zip: Green Bay, WI 54304

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Print Name: David WINS

Firm: TRC

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:

☐ Drinking Water

☐ Watershed/Wastewater

☒ Remediation/Redevelopment

☐ Waste Management

☐ Other: _____

1. Well Location Information

County <u>Winnebago</u>	WI Unique Well # of Removed Well _____	Hicap # _____
Latitude / Longitude (Degrees and Minutes) ____° ____' ____" N ____° ____' ____" W		Method Code (see instructions) _____
1/4 1/4 NW 1/4 NE or Gov't Lot #	Section <u>21</u>	Township <u>19 N</u>
	Range <u>15</u>	☒ E ☐ W
Well Street Address <u>3TH 116</u>		
Well City, Village or Town <u>Winneconne</u>		Well ZIP Code <u>54986</u>
Subdivision Name _____		Lot # _____

2. Facility / Owner Information

Facility Name _____		
Facility ID (FID or PWS) _____		
License/Permit/Monitoring # _____		
Original Well Owner <u>Kathie Van Price</u>		
Present Well Owner <u>Wis DOT</u>		
Mailing Address of Present Owner <u>944 Vanderperren Way</u>		
City of Present Owner <u>Green Bay</u>	State <u>WI</u>	ZIP Code <u>54304</u>

Reason For Removal From Service
Soil boring / temp well

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole	WI Unique Well # of Replacement Well _____
Original Construction Date (mm/dd/yyyy) <u>01/17/14 - 09/18/14</u>	
If a Well Construction Report is available, please attach. _____	
Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): <u>Direct Push</u>	

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock	Total Well Depth From Ground Surface (ft.) <u>10-15 feet</u>
Lower Drillhole Diameter (in.) <u>2</u>	Casing Diameter (in.) _____
Casing Depth (ft.) _____	Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown
If yes, to what depth (feet)? _____	Depth to Water (feet) _____

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes ☐ No ☐ N/A
Liner(s) removed?	☒ Yes ☐ No ☐ N/A
Screen removed?	☒ Yes ☐ No ☐ N/A
Casing left in place?	☐ Yes ☒ No ☐ N/A
Was casing cut off below surface?	☐ Yes ☐ No ☒ N/A
Did sealing material rise to surface?	☐ Yes ☒ No ☐ N/A
Did material settle after 24 hours?	☒ Yes ☐ No ☐ N/A
If yes, was hole retopped?	☐ Yes ☒ No ☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes ☒ No ☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity	☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips)	☐ Other (Explain): _____

Sealing Materials

☐ Neat Cement Grout	☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout	☐ Bentonite-Sand Slurry "
☐ Concrete	☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☒ Bentonite Chips	☐ Bentonite - Cement Grout
☐ Granular Bentonite	☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole (# of holes)

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<u>Bentonite chips</u> ~~(3)~~ <u>(4)</u>	<u>Surface</u>	<u>10</u>	<u>1/3 bag per hole</u>	
<u>Bentonite chips</u> ~~(4)~~ <u>(3)</u>	<u>0</u>	<u>15</u>	<u>1/2 bag per hole</u>	

6. Comments

GP-5-1/TW-5-1, GP-8-2/TW-8-2, GP-8-3/TW-8-3, GP-9-1/TW-9-1, GP-9-2/TW-9-2, GP-9-3/TW-9-3
GP-9-4

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing <u>On-Site Environmental</u>	License # _____	Date of Filling & Sealing (mm/dd/yyyy) <u>09/18/2014</u>	DNR Use Only	
Street or Route <u>PO Box 280</u>			Telephone Number <u>(608) 837-8992</u>	Date Received _____
City <u>Sun Prairie</u>			Signature of Person Doing Work <u>[Signature]</u>	Noted By _____
State <u>WI</u>			ZIP Code <u>53810</u>	Date Signed <u>09/29/2014</u>

Appendix D

Waste Inventory Records

Lipp, Brenda

Subject: FW: Drum Pickup Request - (WisDOT ID 6190-17-00)
Attachments: 223432-001 - Fig 3- 9 drums.pdf; 223432-002 - Fig 4 - 1 drum.pdf; 223432-003 - Fig 1.pdf; Investigation Derived Waste.JPG; dt1229.doc; 40103982_frc - Site 8.pdf; 40103983_frc - Site 5.pdf; 40103985_frc - Site 11.pdf; 40103986_frc - Site 9.pdf; 40103988_frc - Site 12.pdf

----- Original message -----

From: "Braun, Nathan"
Date: 10/21/2014 3:02 PM (GMT-06:00)
To: "Dan Szymaszek (dan.szymaszek@veolia.com)"
Cc: "Haak, Daniel", "Siewert, Dennis", "Sharlene TeBeest (Sharlene.TeBeest@dot.wi.gov)", "VanPrice, Kathie - DOT (Kathie.VanPrice@dot.wi.gov)"
Subject: FW: Drum Pickup Request - (WisDOT ID 6190-17-00)

I forgot to include the lab data so here is my second try with all the info. Thanks!

Nathan Braun, P.E. (AZ, IL, NM, WI)
Project Engineer



TRC Environmental Corporation
708 Heartland Trail, Suite 3000, Madison, WI 53717
T: 608.826.3633 | F: 608.826.3941 | C: 608.287.6416

[LinkedIn](#) | [Twitter](#) | [Blog](#) | [Flickr](#) | www.trcsolutions.com

From: Braun, Nathan
Sent: Tuesday, October 21, 2014 2:42 PM
To: Dan Szymaszek (dan.szymaszek@veolia.com)
Cc: Haak, Daniel; Siewert, Dennis
Subject: Drum Pickup Request - (WisDOT ID 6190-17-00)

Good afternoon Dan,

Please see the attached drum pickup request. I have attached 3 figures to help with the locations of the drums. Please let us know if you have any questions and once the pickup does occur please let us know that they were pick up. Have a great day.

Nathan Braun, P.E. (AZ, IL, NM, WI)
Project Engineer



TRC Environmental Corporation
708 Heartland Trail, Suite 3000, Madison, WI 53717
T: 608.826.3633 | F: 608.826.3941 | C: 608.287.6416

NON-HAZARDOUS WASTE INVENTORY RECORD

Wisconsin Department of Transportation (WisDOT)

DT1229 4/2014 (For use with DT1208)

Page 1 of 1

DTSD Region and Office Northeast - Green Bay		
WisDOT Project ID 6190-17-00	County Winnebago	Highway and Termini STH 116
Site Name STH 116 - Winneconne		Phase of Investigation 3
Consultant Company TRC		
Consultant Contact Dennis Siewert		
Contact (Area Code) Telephone Number (608) 826-3659		
Contact Email Address dsiewert@trcsolutions.com		
Consultant ID for this Site		
Generation Date (m/d/yyyy) 9/18/2014		
Comments, special instructions for pickup or site access See attached figure for drum locations, and lab analytical results		

Waste Description – describe containers of similar size and contents in one row. Insert additional rows as needed. <i>Number and Label Each Container.</i>				
Container ID Number	Container Size and Type	Estimated Volume of Waste	Source: Tank, Well, Boring	Contents: Soil, Water, Other (Describe)
1-8	55 gallon steel drums	8 drums x 55 gallons =440 gallons	7 geoprobe borings and 7 monitoring wells	soil
1	55 gallon drum	1 drum (55 gallons)	Purge water from well development	water
Total Number of Containers to be picked up: 9				

Container Location: Attach map or site sketch to Email

Analytical Results: Attach analytical results to Email

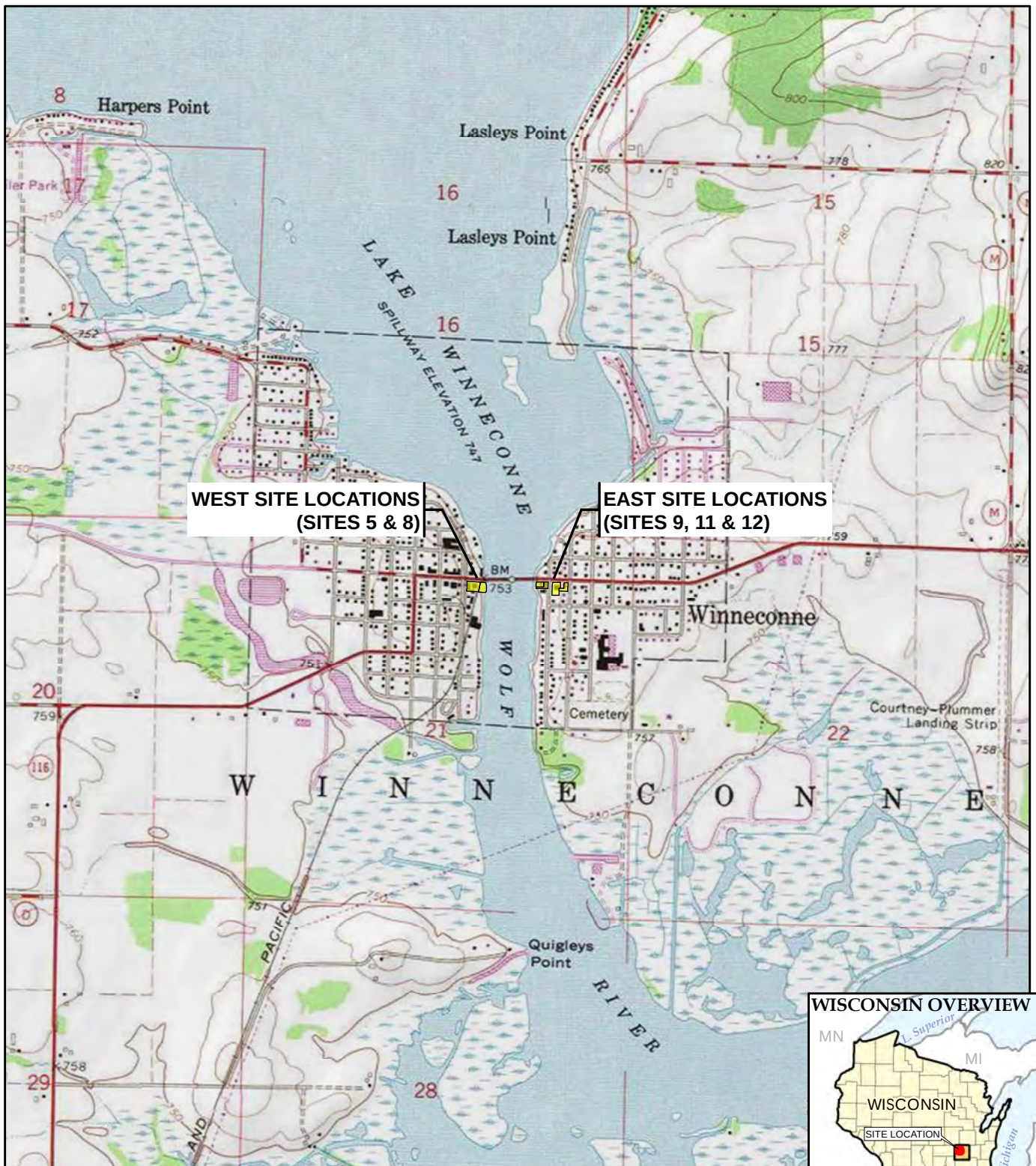
Email one copy of this form to each of the following:

- [DOT Hazardous Materials Specialist](#)
- [Regional Environmental or Hazardous Materials Coordinator.](#)
- [Hazardous Waste Contractor](#)

Include a copy of this form as the final appendix in the report for this site.



TRC - GIS



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



WORKING COPY



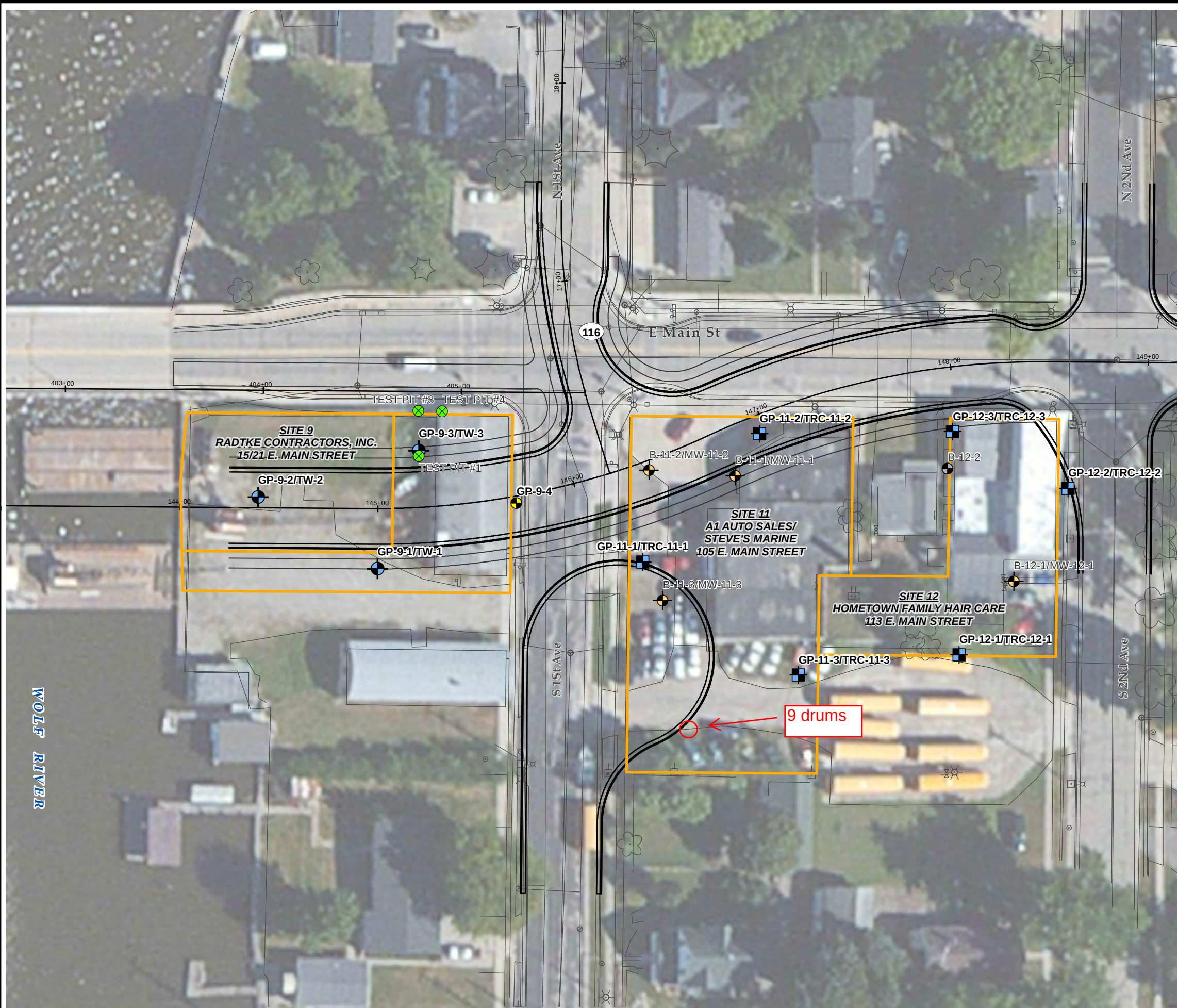
708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

WISDOT ID# 6190-17-00
STH 116
WINNECONNE, WISCONSIN

SITE LOCATION MAP

DRAWN BY:	RHODE B
APPROVED BY:	
PROJECT NO:	223432
FILE NO.	223432-003slm.mxd
DATE:	SEPTEMBER 2014

FIGURE 1

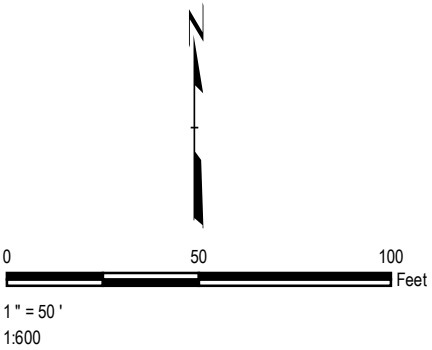


LEGEND

- TRC SOIL BORING / 2" NR 141 MONITORING WELL
- TRC SOIL BORING / TEMPORARY WELL
- TRC SOIL BORING
- HISTORIC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING
- PREVIOUS INVESTIGATION TEST PITS
- PROPERTY BOUNDARY

NOTES

- BASE MAP IMAGERY FROM ESRI/MICROSOFT, "WORLD IMAGERY", WEB BASEMAP SERVICE LAYER, 2011.
- CONSTRUCTION DESIGN WORK SUPPLIED BY WisDOT.
- PROPERTY BOUNDARIES SUPPLIED BY WINNEBAGO COUNTY GIS DEPARTMENT.
- HISTORIC BORING / WELL LOCATIONS AND PROPERTY BOUNDARIES DIGITIZED FROM HIMALAYAN CONSULTANTS, LLC PHASE 1 & 2 FIGURES, LOCATIONS ARE APPROXIMATE.



WORKING COPY

PROJECT: WISDOT ID# 6190-17-00 STH 116 WINNECONNE, WISCONSIN		
SHEET TITLE: SITE MAP- EAST		
DRAWN BY: RHODE B	SCALE: 1: 600	PROJ. NO. 223432
CHECKED BY:		FILE NO. 223432-001.mxd
APPROVED BY:	DATE PRINTED:	FIGURE 1
DATE: OCTOBER 2014		



708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

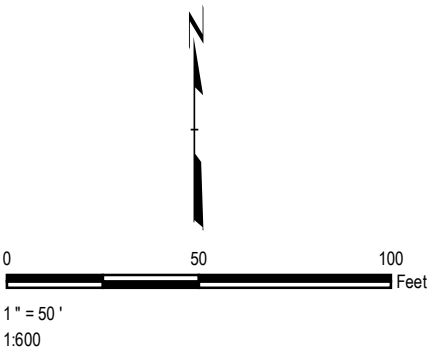


LEGEND

- TRC SOIL BORING / 2" NR 141 MONITORING WELL
- TRC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING / TEMPORARY WELL
- HISTORIC SOIL BORING
- PROPERTY BOUNDARY

NOTES

- BASE MAP IMAGERY FROM ESRI/MICROSOFT, "WORLD IMAGERY", WEB BASEMAP SERVICE LAYER, 2011.
- CONSTRUCTION DESIGN WORK SUPPLIED BY WisDOT.
- PROPERTY BOUNDARIES SUPPLIED BY WINNEBAGO COUNTY GIS DEPARTMENT.
- HISTORIC BORING / WELL LOCATIONS AND PROPERTY BOUNDARIES DIGITIZED FROM HIMALAYAN CONSULTANTS, LLC PHASE 1 & 2 FIGURES, LOCATIONS ARE APPROXIMATE.



WORKING COPY

PROJECT: WISDOT ID# 6190-17-00 STH 116 WINNECONNE, WISCONSIN		
SHEET TITLE: SITE MAP- WEST		
DRAWN BY: RHODE B	SCALE: 1: 600	PROJ. NO. 223432
CHECKED BY:		FILE NO. 223432-002.mxd
APPROVED BY:	DATE PRINTED:	FIGURE 2
DATE: OCTOBER 2014		



708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

Appendix E

Analytical Results

October 08, 2014

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

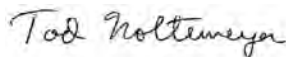
RE: Project: 223432 WINNECONNE Site 5
Pace Project No.: 40103983

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2014. 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,



Tod Noltemeyer
tod.noltemeyer@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

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

New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40103983001	GP-5-1 2.5-5	Solid	09/17/14 11:00	09/24/14 08:35
40103983002	GP-5-1 10'-12.5'	Solid	09/17/14 11:00	09/24/14 08:35
40103983003	GP-5-1/TW5-1	Water	09/17/14 11:00	09/24/14 08:35

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103983001	GP-5-1 2.5-5	EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103983002	GP-5-1 10'-12.5'	EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103983003	GP-5-1/TW5-1	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103983001	GP-5-1 2.5-5					
EPA 6010	Arsenic	3.5	mg/kg	1.8	09/26/14 16:39	
EPA 6010	Barium	58.2	mg/kg	2.2	09/29/14 18:46	
EPA 6010	Cadmium	0.26J	mg/kg	0.44	09/26/14 16:39	
EPA 6010	Chromium	9.9	mg/kg	0.44	09/26/14 16:39	
EPA 6010	Lead	67.8	mg/kg	0.88	09/26/14 16:39	
EPA 7471	Mercury	0.41	mg/kg	0.012	10/02/14 12:39	
EPA 8270 by SIM	Acenaphthylene	10.2J	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Anthracene	30.1	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Benzo(a)anthracene	90.4	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Benzo(a)pyrene	93.7	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Benzo(b)fluoranthene	71.3	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Benzo(g,h,i)perylene	50.8	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Benzo(k)fluoranthene	79.3	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Chrysene	103	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Dibenz(a,h)anthracene	14.9J	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Fluoranthene	172	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	43.4	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Phenanthrene	82.8	ug/kg	16.7	09/26/14 22:34	
EPA 8270 by SIM	Pyrene	161	ug/kg	16.7	09/26/14 22:34	
EPA 8260	Methylene Chloride	35.1J	ug/kg	60.0	09/25/14 17:22	
40103983002	GP-5-1 10'-12.5'					
EPA 6010	Arsenic	4.4	mg/kg	1.9	09/26/14 16:41	
EPA 6010	Barium	67.8	mg/kg	2.4	09/29/14 18:49	
EPA 6010	Chromium	18.3	mg/kg	0.48	09/26/14 16:41	
EPA 6010	Lead	7.4	mg/kg	0.96	09/26/14 16:41	
EPA 7471	Mercury	0.0070	mg/kg	0.0062	10/02/14 11:57	
EPA 8270 by SIM	Benzo(a)anthracene	15.1J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Benzo(a)pyrene	15.5J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Benzo(b)fluoranthene	12.4J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Benzo(g,h,i)perylene	10.4J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Benzo(k)fluoranthene	16.6J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Chrysene	23.8	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Fluoranthene	42.9	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	8.0J	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Phenanthrene	24.5	ug/kg	16.7	09/26/14 20:51	
EPA 8270 by SIM	Pyrene	35.5	ug/kg	16.7	09/26/14 20:51	
40103983003	GP-5-1/TW5-1					
EPA 6010	Barium, Dissolved	32.6	ug/L	5.0	10/01/14 13:17	
EPA 6010	Lead, Dissolved	6.5J	ug/L	7.5	10/01/14 13:17	
EPA 8260	p-Isopropyltoluene	0.58J	ug/L	1.0	09/29/14 13:02	

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 6010

Description: 6010 MET ICP

Client: TRC - MADISON

Date: October 08, 2014

General Information:

2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 7471

Description: 7471 Mercury

Client: TRC - MADISON

Date: October 08, 2014

General Information:

2 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 8270 by SIM

Description: 8270 MSSV PAH by SIM

Client: TRC - MADISON

Date: October 08, 2014

General Information:

2 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25893

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1051770)
- Chloroethane

Matrix Spikes:

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

QC Batch: MSV/25893

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/25898

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE
Pace Project No.: 40103983

Method: EPA 8260
Description: 8260 MSV
Client: TRC - MADISON
Date: October 08, 2014

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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

- GP-5-1/TW5-1 (Lab ID: 40103983003)

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

QC Batch: MSV/25920

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40104103012

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

- MS (Lab ID: 1053739)
 - Bromomethane
 - trans-1,3-Dichloropropene

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 2.5-5 **Lab ID:** 40103983001 **Collected:** 09/17/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.5	mg/kg	1.8	0.56	1	09/26/14 08:30	09/26/14 16:39	7440-38-2	
Barium	58.2	mg/kg	2.2	0.53	5	09/26/14 08:30	09/29/14 18:46	7440-39-3	
Cadmium	0.263	mg/kg	0.44	0.058	1	09/26/14 08:30	09/26/14 16:39	7440-43-9	
Chromium	9.9	mg/kg	0.44	0.17	1	09/26/14 08:30	09/26/14 16:39	7440-47-3	
Lead	67.8	mg/kg	0.88	0.38	1	09/26/14 08:30	09/26/14 16:39	7439-92-1	
Selenium	<0.68	mg/kg	1.8	0.68	1	09/26/14 08:30	09/26/14 16:39	7782-49-2	
Silver	<0.25	mg/kg	0.88	0.25	1	09/26/14 08:30	09/26/14 16:39	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.41	mg/kg	0.012	0.0058	2	10/01/14 11:50	10/02/14 12:39	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	83-32-9	
Acenaphthylene	10.23	ug/kg	16.7	7.5	1	09/26/14 09:01	09/26/14 22:34	208-96-8	
Anthracene	30.1	ug/kg	16.7	8.6	1	09/26/14 09:01	09/26/14 22:34	120-12-7	
Benzo(a)anthracene	90.4	ug/kg	16.7	5.8	1	09/26/14 09:01	09/26/14 22:34	56-55-3	
Benzo(a)pyrene	93.7	ug/kg	16.7	6.0	1	09/26/14 09:01	09/26/14 22:34	50-32-8	
Benzo(b)fluoranthene	71.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	205-99-2	
Benzo(g,h,i)perylene	50.8	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 22:34	191-24-2	
Benzo(k)fluoranthene	79.3	ug/kg	16.7	9.2	1	09/26/14 09:01	09/26/14 22:34	207-08-9	
Chrysene	103	ug/kg	16.7	7.7	1	09/26/14 09:01	09/26/14 22:34	218-01-9	
Dibenz(a,h)anthracene	14.93	ug/kg	16.7	6.1	1	09/26/14 09:01	09/26/14 22:34	53-70-3	
Fluoranthene	172	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	206-44-0	
Fluorene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	86-73-7	
Indeno(1,2,3-cd)pyrene	43.4	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 22:34	193-39-5	
1-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	90-12-0	
2-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	91-57-6	
Naphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	91-20-3	
Phenanthrene	82.8	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	85-01-8	
Pyrene	161	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 22:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58 %		40-130		1	09/26/14 09:01	09/26/14 22:34	321-60-8	
Terphenyl-d14 (S)	65 %		40-130		1	09/26/14 09:01	09/26/14 22:34	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 17:22	120-82-1	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 2.5-5 **Lab ID:** 40103983001 **Collected:** 09/17/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 17:22	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 17:22	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 17:22	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 17:22	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	1634-04-4	W
Methylene Chloride	35.1J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-09-2	
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 17:22	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 17:22	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	103-65-1	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 2.5-5 **Lab ID:** 40103983001 Collected: 09/17/14 11:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 17:22	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	95 %		37-152		1	09/25/14 07:40	09/25/14 17:22	1868-53-7	
Toluene-d8 (S)	89 %		38-154		1	09/25/14 07:40	09/25/14 17:22	2037-26-5	
4-Bromofluorobenzene (S)	87 %		39-139		1	09/25/14 07:40	09/25/14 17:22	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 10'-12.5' **Lab ID:** 40103983002 **Collected:** 09/17/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	4.4	mg/kg	1.9	0.61	1	09/26/14 08:30	09/26/14 16:41	7440-38-2	
Barium	67.8	mg/kg	2.4	0.57	5	09/26/14 08:30	09/29/14 18:49	7440-39-3	
Cadmium	<0.063	mg/kg	0.48	0.063	1	09/26/14 08:30	09/26/14 16:41	7440-43-9	
Chromium	18.3	mg/kg	0.48	0.19	1	09/26/14 08:30	09/26/14 16:41	7440-47-3	
Lead	7.4	mg/kg	0.96	0.41	1	09/26/14 08:30	09/26/14 16:41	7439-92-1	
Selenium	<0.74	mg/kg	1.9	0.74	1	09/26/14 08:30	09/26/14 16:41	7782-49-2	
Silver	<0.27	mg/kg	0.96	0.27	1	09/26/14 08:30	09/26/14 16:41	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0070	mg/kg	0.0062	0.0031	1	10/01/14 11:50	10/02/14 11:57	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	83-32-9	
Acenaphthylene	<7.5	ug/kg	16.7	7.5	1	09/26/14 09:01	09/26/14 20:51	208-96-8	
Anthracene	<8.6	ug/kg	16.7	8.6	1	09/26/14 09:01	09/26/14 20:51	120-12-7	
Benzo(a)anthracene	15.1J	ug/kg	16.7	5.8	1	09/26/14 09:01	09/26/14 20:51	56-55-3	
Benzo(a)pyrene	15.5J	ug/kg	16.7	6.0	1	09/26/14 09:01	09/26/14 20:51	50-32-8	
Benzo(b)fluoranthene	12.4J	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	205-99-2	
Benzo(g,h,i)perylene	10.4J	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 20:51	191-24-2	
Benzo(k)fluoranthene	16.6J	ug/kg	16.7	9.2	1	09/26/14 09:01	09/26/14 20:51	207-08-9	
Chrysene	23.8	ug/kg	16.7	7.7	1	09/26/14 09:01	09/26/14 20:51	218-01-9	
Dibenz(a,h)anthracene	<6.1	ug/kg	16.7	6.1	1	09/26/14 09:01	09/26/14 20:51	53-70-3	
Fluoranthene	42.9	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	206-44-0	
Fluorene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	86-73-7	
Indeno(1,2,3-cd)pyrene	8.0J	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 20:51	193-39-5	
1-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	90-12-0	
2-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	91-57-6	
Naphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	91-20-3	
Phenanthrene	24.5	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	85-01-8	
Pyrene	35.5	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57	%	40-130		1	09/26/14 09:01	09/26/14 20:51	321-60-8	
Terphenyl-d14 (S)	66	%	40-130		1	09/26/14 09:01	09/26/14 20:51	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 17:27	120-82-1	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 10'-12.5' Lab ID: 40103983002 Collected: 09/17/14 11:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 17:27	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 17:27	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 17:27	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 17:27	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 17:27	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 17:27	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	103-65-1	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1 10'-12.5' **Lab ID:** 40103983002 Collected: 09/17/14 11:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:27	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	83	%	37-152		1	09/25/14 09:20	09/25/14 17:27	1868-53-7	
Toluene-d8 (S)	95	%	38-154		1	09/25/14 09:20	09/25/14 17:27	2037-26-5	
4-Bromofluorobenzene (S)	86	%	39-139		1	09/25/14 09:20	09/25/14 17:27	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1/TW5-1 Lab ID: 40103983003 Collected: 09/17/14 11:00 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/01/14 13:17	7440-38-2	
Barium, Dissolved	32.6	ug/L	5.0	1.4	1		10/01/14 13:17	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/01/14 13:17	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/01/14 13:17	7440-47-3	
Lead, Dissolved	6.5J	ug/L	7.5	3.0	1		10/01/14 13:17	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/01/14 13:17	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/01/14 13:17	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:58	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:02	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 13:02	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 13:02	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:02	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 13:02	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 13:02	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 13:02	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 13:02	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 13:02	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 13:02	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 13:02	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 13:02	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 13:02	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:02	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 13:02	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 13:02	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 13:02	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 13:02	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 13:02	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 13:02	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Sample: GP-5-1/TW5-1 Lab ID: 40103983003 Collected: 09/17/14 11:00 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:02	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:02	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 13:02	98-82-8	
p-Isopropyltoluene	0.58J	ug/L	1.0	0.50	1		09/29/14 13:02	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 13:02	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 13:02	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 13:02	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 13:02	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 13:02	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:02	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:02	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 13:02	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 13:02	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:02	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 13:02	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 13:02	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90 %		59-130		1		09/29/14 13:02	460-00-4	pH
Dibromofluoromethane (S)	93 %		70-130		1		09/29/14 13:02	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		09/29/14 13:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

QC Batch:	ICP/9629	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	40103983003		

METHOD BLANK: 1055192 Matrix: Water
Associated Lab Samples: 40103983003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/01/14 13:02	
Barium, Dissolved	ug/L	<1.4	5.0	10/01/14 13:02	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/01/14 13:02	
Chromium, Dissolved	ug/L	<2.1	5.0	10/01/14 13:02	
Lead, Dissolved	ug/L	<3.0	7.5	10/01/14 13:02	
Selenium, Dissolved	ug/L	<6.7	20.0	10/01/14 13:02	
Silver, Dissolved	ug/L	<2.7	10.0	10/01/14 13:02	

LABORATORY CONTROL SAMPLE: 1055193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	512	102	80-120	
Barium, Dissolved	ug/L	500	476	95	80-120	
Cadmium, Dissolved	ug/L	500	489	98	80-120	
Chromium, Dissolved	ug/L	500	527	105	80-120	
Lead, Dissolved	ug/L	500	515	103	80-120	
Selenium, Dissolved	ug/L	500	504	101	80-120	
Silver, Dissolved	ug/L	250	252	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055194 1055195

Parameter	Units	40103984005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	499	496	100	99	75-125	1	20	
Barium, Dissolved	ug/L	69.3	500	500	516	519	89	90	75-125	1	20	
Cadmium, Dissolved	ug/L	3.4J	500	500	478	480	95	95	75-125	1	20	
Chromium, Dissolved	ug/L	<2.1	500	500	503	499	100	100	75-125	1	20	
Lead, Dissolved	ug/L	<3.0	500	500	493	494	98	98	75-125	0	20	
Selenium, Dissolved	ug/L	<6.7	500	500	495	505	99	101	75-125	2	20	
Silver, Dissolved	ug/L	<2.7	250	250	228	229	91	92	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

QC Batch:	MERP/4501	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury Dissolved
Associated Lab Samples:	40103983003		

METHOD BLANK: 1052253 Matrix: Water
Associated Lab Samples: 40103983003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	09/29/14 11:02	

LABORATORY CONTROL SAMPLE: 1052254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.4	109	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052255 1052256

Parameter	Units	40103920001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	5.4	5.4	108	108	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

QC Batch: MERP/4508

Analysis Method: EPA 7471

QC Batch Method: EPA 7471

Analysis Description: 7471 Mercury

Associated Lab Samples: 40103983001, 40103983002

METHOD BLANK: 1055074

Matrix: Solid

Associated Lab Samples: 40103983001, 40103983002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	10/02/14 11:21	

LABORATORY CONTROL SAMPLE: 1055075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.16	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055076 1055077

Parameter	Units	40103982004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.0050J	.17	.17	0.17	0.17	99	99	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

QC Batch: MPRP/10859

Analysis Method: EPA 6010

QC Batch Method: EPA 3050

Analysis Description: 6010 MET

Associated Lab Samples: 40103983001, 40103983002

METHOD BLANK: 1051994

Matrix: Solid

Associated Lab Samples: 40103983001, 40103983002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.64	2.0	09/26/14 15:54	
Barium	mg/kg	<0.12	0.50	09/26/14 15:54	
Cadmium	mg/kg	<0.066	0.50	09/26/14 15:54	
Chromium	mg/kg	<0.19	0.50	09/26/14 15:54	
Lead	mg/kg	<0.43	1.0	09/26/14 15:54	
Selenium	mg/kg	<0.77	2.0	09/26/14 15:54	
Silver	mg/kg	<0.28	1.0	09/26/14 15:54	

LABORATORY CONTROL SAMPLE: 1051995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.2	94	80-120	
Barium	mg/kg	50	49.3	99	80-120	
Cadmium	mg/kg	50	47.5	95	80-120	
Chromium	mg/kg	50	49.0	98	80-120	
Lead	mg/kg	50	48.4	97	80-120	
Selenium	mg/kg	50	46.8	94	80-120	
Silver	mg/kg	25	23.5	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1051996

1051997

Parameter	Units	40103985001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	2.9	50	49.8	47.6	48.5	89	92	75-125	2	20	
Barium	mg/kg	56.0	50	49.8	106	106	101	100	75-125	0	20	
Cadmium	mg/kg	<0.066	50	49.8	46.5	46.5	93	93	75-125	0	20	
Chromium	mg/kg	18.1	50	49.8	64.4	65.2	93	95	75-125	1	20	
Lead	mg/kg	4.4	50	49.8	48.2	48.4	88	88	75-125	0	20	
Selenium	mg/kg	<0.77	50	49.8	43.9	44.1	88	88	75-125	0	20	
Silver	mg/kg	<0.28	25	24.9	23.2	23.3	93	93	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

QC Batch:	MSV/25893	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	40103983002		

METHOD BLANK: 1051769 Matrix: Solid
Associated Lab Samples: 40103983002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:35	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:35	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:35	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:35	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:35	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:35	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:35	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:35	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:35	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:35	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:35	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:35	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:35	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:35	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:35	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:35	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:35	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:35	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:35	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:35	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:35	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:35	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:35	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:35	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:35	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:35	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:35	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:35	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:35	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:35	
Chloroform	ug/kg	<46.4	250	09/25/14 09:35	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:35	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:35	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:35	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:35	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:35	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:35	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:35	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:35	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

METHOD BLANK: 1051769

Matrix: Solid

Associated Lab Samples: 40103983002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:35	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:35	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:35	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:35	
Methylene Chloride	ug/kg	20.0J	50.0	09/25/14 09:35	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:35	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:35	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:35	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:35	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:35	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:35	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:35	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:35	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:35	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:35	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:35	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:35	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:35	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:35	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:35	
4-Bromofluorobenzene (S)	%	97	39-139	09/25/14 09:35	
Dibromofluoromethane (S)	%	96	37-152	09/25/14 09:35	
Toluene-d8 (S)	%	109	38-154	09/25/14 09:35	

LABORATORY CONTROL SAMPLE & LCSD: 1051770

1051771

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2520	2480	101	99	70-130	2	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2200	2180	88	87	70-130	1	20	
1,1,2-Trichloroethane	ug/kg	2500	2840	2780	114	111	70-130	2	20	
1,1-Dichloroethane	ug/kg	2500	2600	2500	104	100	70-130	4	20	
1,1-Dichloroethene	ug/kg	2500	2290	2230	92	89	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2250	2310	90	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1960	2050	79	82	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2640	2590	106	104	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	2500	2410	2390	97	96	70-130	1	20	
1,2-Dichloroethane	ug/kg	2500	2620	2560	105	102	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2710	2700	108	108	70-130	0	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2410	98	96	70-130	1	20	
1,4-Dichlorobenzene	ug/kg	2500	2400	2380	96	95	70-130	1	20	
Benzene	ug/kg	2500	2580	2510	103	100	70-130	3	20	
Bromodichloromethane	ug/kg	2500	2390	2340	95	94	70-130	2	20	
Bromoform	ug/kg	2500	1880	1850	75	74	70-130	2	20	
Bromomethane	ug/kg	2500	2940	2900	118	116	34-173	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

LABORATORY CONTROL SAMPLE & LCSD: 1051770			1051771							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2290	2270	92	91	70-130	1	20	
Chlorobenzene	ug/kg	2500	2620	2560	105	102	70-130	2	20	
Chloroethane	ug/kg	2500	4620	4300	185	172	44-173	7	20	L0
Chloroform	ug/kg	2500	2290	2260	92	91	70-130	1	20	
Chloromethane	ug/kg	2500	2230	2100	89	84	43-130	6	20	
cis-1,2-Dichloroethene	ug/kg	2500	2430	2400	97	96	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2270	2260	91	90	70-130	0	20	
Dibromochloromethane	ug/kg	2500	2260	2200	90	88	70-130	3	20	
Dichlorodifluoromethane	ug/kg	2500	1480	1340	59	54	10-150	10	20	
Ethylbenzene	ug/kg	2500	2790	2730	111	109	70-130	2	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2690	2620	107	105	70-130	3	20	
m&p-Xylene	ug/kg	5000	5360	5180	107	104	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2540	2450	102	98	65-131	4	20	
Methylene Chloride	ug/kg	2500	2530	2450	101	98	64-143	3	20	
o-Xylene	ug/kg	2500	2710	2630	108	105	70-130	3	20	
Styrene	ug/kg	2500	2440	2390	97	96	70-130	2	20	
Tetrachloroethene	ug/kg	2500	2340	2270	94	91	70-130	3	20	
Toluene	ug/kg	2500	2760	2690	110	107	70-130	3	20	
trans-1,2-Dichloroethene	ug/kg	2500	2430	2350	97	94	70-130	4	20	
trans-1,3-Dichloropropene	ug/kg	2500	2360	2330	94	93	70-130	1	20	
Trichloroethene	ug/kg	2500	2750	2710	110	109	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2360	2250	95	90	50-150	5	20	
Vinyl chloride	ug/kg	2500	2490	2380	100	95	57-130	4	20	
4-Bromofluorobenzene (S)	%				100	101	39-139			
Dibromofluoromethane (S)	%				106	105	37-152			
Toluene-d8 (S)	%				112	111	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

QC Batch:	MSV/25898	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	40103983001		

METHOD BLANK: 1051818 Matrix: Solid
Associated Lab Samples: 40103983001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:23	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:23	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:23	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:23	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:23	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:23	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:23	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:23	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:23	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:23	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:23	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:23	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:23	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:23	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:23	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:23	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:23	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:23	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:23	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:23	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:23	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:23	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:23	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:23	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:23	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:23	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:23	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:23	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:23	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:23	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:23	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:23	
Chloroform	ug/kg	<46.4	250	09/25/14 09:23	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:23	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:23	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:23	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:23	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:23	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:23	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:23	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:23	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

METHOD BLANK: 1051818

Matrix: Solid

Associated Lab Samples: 40103983001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:23	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:23	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:23	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:23	
Methylene Chloride	ug/kg	16.7J	50.0	09/25/14 09:23	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:23	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:23	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:23	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:23	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:23	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:23	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:23	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:23	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:23	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:23	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:23	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:23	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:23	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:23	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:23	
4-Bromofluorobenzene (S)	%	108	39-139	09/25/14 09:23	
Dibromofluoromethane (S)	%	114	37-152	09/25/14 09:23	
Toluene-d8 (S)	%	107	38-154	09/25/14 09:23	

LABORATORY CONTROL SAMPLE & LCSD: 1051819

1051820

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2690	2720	108	109	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2380	2480	95	99	70-130	4	20	
1,1,2-Trichloroethane	ug/kg	2500	2410	2410	97	96	70-130	0	20	
1,1-Dichloroethane	ug/kg	2500	2390	2440	96	97	70-130	2	20	
1,1-Dichloroethene	ug/kg	2500	2420	2470	97	99	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2380	2460	95	99	70-130	3	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2300	2290	92	92	50-150	0	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2650	2640	106	105	70-130	0	20	
1,2-Dichlorobenzene	ug/kg	2500	2440	2490	98	100	70-130	2	20	
1,2-Dichloroethane	ug/kg	2500	3010	3070	120	123	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2730	2750	109	110	70-130	1	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2530	98	101	70-130	4	20	
1,4-Dichlorobenzene	ug/kg	2500	2390	2460	96	98	70-130	3	20	
Benzene	ug/kg	2500	2620	2630	105	105	70-130	1	20	
Bromodichloromethane	ug/kg	2500	2470	2490	99	100	70-130	1	20	
Bromoform	ug/kg	2500	2110	2170	84	87	70-130	3	20	
Bromomethane	ug/kg	2500	1490	1700	60	68	34-173	13	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

LABORATORY CONTROL SAMPLE & LCSD: 1051819			1051820							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2610	2670	105	107	70-130	2	20	
Chlorobenzene	ug/kg	2500	2510	2560	100	102	70-130	2	20	
Chloroethane	ug/kg	2500	1980	2010	79	80	44-173	1	20	
Chloroform	ug/kg	2500	2740	2770	109	111	70-130	1	20	
Chloromethane	ug/kg	2500	2340	2290	93	92	43-130	2	20	
cis-1,2-Dichloroethene	ug/kg	2500	2280	2440	91	98	70-130	7	20	
cis-1,3-Dichloropropene	ug/kg	2500	2360	2390	95	96	70-130	1	20	
Dibromochloromethane	ug/kg	2500	2300	2330	92	93	70-130	1	20	
Dichlorodifluoromethane	ug/kg	2500	1570	1530	63	61	10-150	3	20	
Ethylbenzene	ug/kg	2500	2620	2620	105	105	70-130	0	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2710	2700	108	108	70-130	0	20	
m&p-Xylene	ug/kg	5000	5160	5180	103	104	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	2500	2380	2430	95	97	65-131	2	20	
Methylene Chloride	ug/kg	2500	2430	2580	97	103	64-143	6	20	
o-Xylene	ug/kg	2500	2540	2570	101	103	70-130	1	20	
Styrene	ug/kg	2500	2650	2630	106	105	70-130	1	20	
Tetrachloroethene	ug/kg	2500	2350	2350	94	94	70-130	0	20	
Toluene	ug/kg	2500	2520	2560	101	102	70-130	2	20	
trans-1,2-Dichloroethene	ug/kg	2500	2470	2510	99	100	70-130	1	20	
trans-1,3-Dichloropropene	ug/kg	2500	2310	2390	92	96	70-130	3	20	
Trichloroethene	ug/kg	2500	2710	2740	108	110	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2120	2150	85	86	50-150	1	20	
Vinyl chloride	ug/kg	2500	2330	2290	93	92	57-130	1	20	
4-Bromofluorobenzene (S)	%				113	110	39-139			
Dibromofluoromethane (S)	%				122	119	37-152			
Toluene-d8 (S)	%				110	109	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

QC Batch:	MSV/25920	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	40103983003		

METHOD BLANK: 1053422 Matrix: Water
Associated Lab Samples: 40103983003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 08:10	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 08:10	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 08:10	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 08:10	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 08:10	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 08:10	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 08:10	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 08:10	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 08:10	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 08:10	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 08:10	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 08:10	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 08:10	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 08:10	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 08:10	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 08:10	
Benzene	ug/L	<0.50	1.0	09/29/14 08:10	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 08:10	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 08:10	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Bromoform	ug/L	<0.50	1.0	09/29/14 08:10	
Bromomethane	ug/L	<2.4	5.0	09/29/14 08:10	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 08:10	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Chloroethane	ug/L	<0.37	1.0	09/29/14 08:10	
Chloroform	ug/L	<2.5	5.0	09/29/14 08:10	
Chloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 08:10	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 08:10	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 08:10	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103983

METHOD BLANK: 1053422

Matrix: Water

Associated Lab Samples: 40103983003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 08:10	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 08:10	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 08:10	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 08:10	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 08:10	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Naphthalene	ug/L	<2.5	5.0	09/29/14 08:10	
o-Xylene	ug/L	<0.50	1.0	09/29/14 08:10	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 08:10	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 08:10	
Styrene	ug/L	<0.50	1.0	09/29/14 08:10	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 08:10	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 08:10	
Toluene	ug/L	<0.50	1.0	09/29/14 08:10	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 08:10	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 08:10	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 08:10	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 08:10	
4-Bromofluorobenzene (S)	%	91	59-130	09/29/14 08:10	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 08:10	
Toluene-d8 (S)	%	96	70-130	09/29/14 08:10	

LABORATORY CONTROL SAMPLE & LCSD: 1053423

1053424

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.7	49.2	97	98	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	50	49.4	51.1	99	102	70-130	3	20	
1,1,2-Trichloroethane	ug/L	50	51.8	54.5	104	109	70-130	5	20	
1,1-Dichloroethane	ug/L	50	57.9	58.1	116	116	70-130	0	20	
1,1-Dichloroethene	ug/L	50	62.7	62.7	125	125	70-132	0	20	
1,2,4-Trichlorobenzene	ug/L	50	52.2	56.1	104	112	70-130	7	20	
1,2-Dibromo-3-chloropropane	ug/L	50	41.0	44.4	82	89	50-150	8	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.6	54.1	107	108	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.9	53.9	106	108	70-130	2	20	
1,2-Dichloroethane	ug/L	50	54.2	54.6	108	109	70-130	1	20	
1,2-Dichloropropane	ug/L	50	56.6	58.0	113	116	70-130	2	20	
1,3-Dichlorobenzene	ug/L	50	52.3	52.8	105	106	70-130	1	20	
1,4-Dichlorobenzene	ug/L	50	50.5	51.6	101	103	70-130	2	20	
Benzene	ug/L	50	59.3	59.4	119	119	70-130	0	20	
Bromodichloromethane	ug/L	50	53.0	54.0	106	108	70-130	2	20	
Bromoform	ug/L	50	42.2	42.8	84	86	70-130	1	20	
Bromomethane	ug/L	50	42.5	47.9	85	96	34-157	12	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

LABORATORY CONTROL SAMPLE & LCSD:		1053423	1053424							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	50.4	52.2	101	104	70-132	3	20	
Chlorobenzene	ug/L	50	54.2	55.5	108	111	70-130	2	20	
Chloroethane	ug/L	50	66.7	64.1	133	128	60-143	4	20	
Chloroform	ug/L	50	47.0	45.9	94	92	70-130	2	20	
Chloromethane	ug/L	50	72.8	72.5	146	145	43-148	0	20	
cis-1,2-Dichloroethene	ug/L	50	55.7	54.7	111	109	51-133	2	20	
cis-1,3-Dichloropropene	ug/L	50	52.1	52.7	104	105	70-130	1	20	
Dibromochloromethane	ug/L	50	50.0	53.1	100	106	70-130	6	20	
Dichlorodifluoromethane	ug/L	50	77.6	76.2	155	152	10-174	2	20	
Ethylbenzene	ug/L	50	58.2	59.3	116	119	70-130	2	20	
Isopropylbenzene (Cumene)	ug/L	50	58.3	59.1	117	118	70-136	1	20	
m&p-Xylene	ug/L	100	115	115	115	115	70-131	0	20	
Methyl-tert-butyl ether	ug/L	50	52.9	52.9	106	106	54-139	0	20	
Methylene Chloride	ug/L	50	58.7	58.0	117	116	70-130	1	20	
o-Xylene	ug/L	50	57.3	57.8	115	116	70-130	1	20	
Styrene	ug/L	50	52.8	52.7	106	105	70-130	0	20	
Tetrachloroethene	ug/L	50	55.5	56.6	111	113	70-130	2	20	
Toluene	ug/L	50	55.8	56.1	112	112	70-130	0	20	
trans-1,2-Dichloroethene	ug/L	50	60.1	59.9	120	120	70-130	0	20	
trans-1,3-Dichloropropene	ug/L	50	43.2	45.7	86	91	70-130	5	20	
Trichloroethene	ug/L	50	58.4	58.9	117	118	70-130	1	20	
Trichlorofluoromethane	ug/L	50	62.6	62.3	125	125	50-150	1	20	
Vinyl chloride	ug/L	50	70.3	71.4	141	143	59-157	2	20	
4-Bromofluorobenzene (S)	%				102	104	59-130			
Dibromofluoromethane (S)	%				94	93	70-130			
Toluene-d8 (S)	%				96	97	70-130			

MATRIX SPIKE SAMPLE:	1053739	40104103012	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	50	40.8	82	70-130	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	60.5	121	70-130	
1,1,2-Trichloroethane	ug/L	<0.16	50	57.6	115	70-130	
1,1-Dichloroethane	ug/L	<0.24	50	54.5	109	70-130	
1,1-Dichloroethene	ug/L	<0.41	50	57.7	115	70-138	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	47.8	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	47.0	94	50-150	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	56.3	113	70-130	
1,2-Dichlorobenzene	ug/L	<0.50	50	51.3	103	70-130	
1,2-Dichloroethane	ug/L	<0.17	50	54.0	108	70-130	
1,2-Dichloropropane	ug/L	<0.23	50	54.6	109	70-130	
1,3-Dichlorobenzene	ug/L	<0.50	50	49.4	99	70-130	
1,4-Dichlorobenzene	ug/L	<0.50	50	48.4	97	70-130	
Benzene	ug/L	<0.50	50	56.5	113	70-130	
Bromodichloromethane	ug/L	<0.50	50	51.4	103	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

MATRIX SPIKE SAMPLE:		1053739					
Parameter	Units	40104103012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	<0.50	50	44.3	89	70-130	
Bromomethane	ug/L	<2.4	50	15.9	32	34-159	M1
Carbon tetrachloride	ug/L	<0.50	50	41.6	83	70-132	
Chlorobenzene	ug/L	<0.50	50	53.5	107	70-130	
Chloroethane	ug/L	<0.37	50	59.8	120	60-143	
Chloroform	ug/L	<2.5	50	43.2	86	70-130	
Chloromethane	ug/L	<0.50	50	56.7	113	43-149	
cis-1,2-Dichloroethene	ug/L	<0.26	50	42.5	85	48-137	
cis-1,3-Dichloropropene	ug/L	<0.50	50	41.8	84	70-130	
Dibromochloromethane	ug/L	<0.50	50	51.3	103	70-130	
Dichlorodifluoromethane	ug/L	<0.20	50	66.9	134	10-174	
Ethylbenzene	ug/L	<0.50	50	56.0	112	70-130	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	54.7	109	70-136	
m&p-Xylene	ug/L	<1.0	100	109	109	70-135	
Methyl-tert-butyl ether	ug/L	<0.17	50	46.8	94	54-139	
Methylene Chloride	ug/L	<0.23	50	53.4	107	70-133	
o-Xylene	ug/L	<0.50	50	55.1	110	70-130	
Styrene	ug/L	<0.50	50	50.7	101	70-130	
Tetrachloroethene	ug/L	<0.50	50	53.5	107	70-130	
Toluene	ug/L	<0.50	50	54.9	110	70-130	
trans-1,2-Dichloroethene	ug/L	<0.26	50	55.9	112	70-130	
trans-1,3-Dichloropropene	ug/L	<0.23	50	32.6	65	70-130	M1
Trichloroethene	ug/L	<0.33	50	57.1	114	70-130	
Trichlorofluoromethane	ug/L	<0.17	50	56.7	113	50-150	
Vinyl chloride	ug/L	<0.18	50	57.3	115	59-158	
4-Bromofluorobenzene (S)	%				101	59-130	HS
Dibromofluoromethane (S)	%				86	70-130	
Toluene-d8 (S)	%				96	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103983

QC Batch:	OEXT/24400	Analysis Method:	EPA 8270 by SIM
QC Batch Method:	EPA 3546	Analysis Description:	8270/3546 MSSV PAH by SIM
Associated Lab Samples:	40103983001, 40103983002		

METHOD BLANK: 1052012 Matrix: Solid

Associated Lab Samples: 40103983001, 40103983002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
2-Methylnaphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
Acenaphthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Acenaphthylene	ug/kg	<7.5	16.7	09/26/14 11:33	
Anthracene	ug/kg	<8.6	16.7	09/26/14 11:33	
Benzo(a)anthracene	ug/kg	<5.8	16.7	09/26/14 11:33	
Benzo(a)pyrene	ug/kg	<6.0	16.7	09/26/14 11:33	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	09/26/14 11:33	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	09/26/14 11:33	
Chrysene	ug/kg	<7.7	16.7	09/26/14 11:33	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	09/26/14 11:33	
Fluoranthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Fluorene	ug/kg	<8.3	16.7	09/26/14 11:33	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	09/26/14 11:33	
Naphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
Phenanthrene	ug/kg	<8.3	16.7	09/26/14 11:33	
Pyrene	ug/kg	<8.3	16.7	09/26/14 11:33	
2-Fluorobiphenyl (S)	%	65	40-130	09/26/14 11:33	
Terphenyl-d14 (S)	%	74	40-130	09/26/14 11:33	

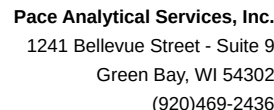
LABORATORY CONTROL SAMPLE: 1052013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	254	76	47-130	
2-Methylnaphthalene	ug/kg	333	250	75	48-130	
Acenaphthene	ug/kg	333	258	77	55-130	
Acenaphthylene	ug/kg	333	256	77	55-130	
Anthracene	ug/kg	333	317	95	66-130	
Benzo(a)anthracene	ug/kg	333	248	74	55-130	
Benzo(a)pyrene	ug/kg	333	233	70	56-130	
Benzo(b)fluoranthene	ug/kg	333	238	71	53-130	
Benzo(g,h,i)perylene	ug/kg	333	261	78	51-130	
Benzo(k)fluoranthene	ug/kg	333	280	84	52-130	
Chrysene	ug/kg	333	337	101	58-130	
Dibenz(a,h)anthracene	ug/kg	333	252	76	55-130	
Fluoranthene	ug/kg	333	283	85	62-130	
Fluorene	ug/kg	333	276	83	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	256	77	54-130	
Naphthalene	ug/kg	333	250	75	41-130	

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

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



Project: 223432 WINNECONNE
Pace Project No.: 40103983

LABORATORY CONTROL SAMPLE: 1052013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	242	73	60-130	
Pyrene	ug/kg	333	271	81	51-130	
2-Fluorobiphenyl (S)	%			71	40-130	
Terphenyl-d14 (S)	%			80	40-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052014 1052015

Parameter	Units	40103850014	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Spike Conc.	Spike Conc.							
1-Methylnaphthalene	ug/kg	<9.8	392	392	271	291	69	74	42-130	7	32
2-Methylnaphthalene	ug/kg	<9.8	392	392	260	282	66	72	34-130	8	35
Acenaphthene	ug/kg	<9.8	392	392	266	288	68	73	31-130	8	35
Acenaphthylene	ug/kg	<8.8	392	392	264	286	67	73	32-130	8	25
Anthracene	ug/kg	<10.2	392	392	312	334	79	85	39-131	7	38
Benzo(a)anthracene	ug/kg	<6.8	392	392	242	261	62	66	29-130	8	30
Benzo(a)pyrene	ug/kg	<7.0	392	392	257	276	65	70	35-130	7	33
Benzo(b)fluoranthene	ug/kg	<9.8	392	392	237	233	60	59	21-142	2	44
Benzo(g,h,i)perylene	ug/kg	<7.5	392	392	260	275	66	70	12-134	6	33
Benzo(k)fluoranthene	ug/kg	<10.9	392	392	269	318	69	81	35-130	17	37
Chrysene	ug/kg	<9.1	392	392	320	350	82	89	37-130	9	38
Dibenz(a,h)anthracene	ug/kg	<7.2	392	392	243	265	62	67	23-130	8	27
Fluoranthene	ug/kg	<9.8	392	392	272	289	69	74	29-137	6	50
Fluorene	ug/kg	<9.8	392	392	280	302	71	77	32-130	8	32
Indeno(1,2,3-cd)pyrene	ug/kg	<7.5	392	392	248	269	63	68	17-134	8	28
Naphthalene	ug/kg	<9.8	392	392	259	286	66	73	24-130	10	40
Phenanthrene	ug/kg	<9.8	392	392	239	254	61	65	27-135	6	46
Pyrene	ug/kg	<9.8	392	392	264	286	67	73	24-130	8	49
2-Fluorobiphenyl (S)	%						60	65	40-130		
Terphenyl-d14 (S)	%						64	70	40-130		

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.

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

QUALIFIERS

Project: 223432 WINNECONNE
Pace Project No.: 40103983

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
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.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
LOD - Limit of Detection.
LOQ - Limit of Quantitation.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: MSV/25894

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/25900

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
W Non-detect results are reported on a wet weight basis.
pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 223432 WINNECONNE

Pace Project No.: 40103983

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40103983001	GP-5-1 2.5-5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103983002	GP-5-1 10'-12.5'	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103983003	GP-5-1/TW5-1	EPA 6010	ICP/9629		
40103983003	GP-5-1/TW5-1	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103983001	GP-5-1 2.5-5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103983002	GP-5-1 10'-12.5'	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103983001	GP-5-1 2.5-5	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103983002	GP-5-1 10'-12.5'	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103983001	GP-5-1 2.5-5	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103983002	GP-5-1 10'-12.5'	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103983003	GP-5-1/TW5-1	EPA 8260	MSV/25920		

REPORT OF LABORATORY ANALYSIS

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

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436
Page 1 of 1

FACE ANALYTICAL
www.faceanals.com

40103983

Page 39 of 41

CHAIN OF CUSTODY

Company Name: TREC
Branch/Location: MADISON
Project Contact: DENNIS STEWERT
Phone: 608-826-3659
Project Number: 223432
Project Name: UMBECOME
Project State: WI
Sampled By (Print): DENNIS STEWERT
Sampled By (Sign): Dennis Stewart
PO #: Regulatory Program:
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 = Blood
C = Chemical
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):
A=None
B=HCL
C=H2SO4
D=HNO3
E=D Water
F=Methanol
G=NaOH
H=Sodium Bisulfate Solution
I=Sodium Thiosulfate
J=Other
Analyses Requested:
RCRA 8 metals
VOCs
PAH
DRO
GRO
RCRA 8 metals
VOCs
CLIENT COMMENTS:
LAB COMMENTS:
Profile #

Jacki Johnson - Fwd: Winneconne analytical samples from TRC

40103983

From: Tod Noltemeyer
To: Hamilton, Abigail; Johnson, Jacki; WI Sample Receiving
Date: 9/24/2014 10:47 AM
Subject: Fwd: Winneconne analytical samples from TRC

Per below, for TRC Winneconne project coming in to GB this morning put the samples in five batches: GP5, GP8, GP9, GP11, GP12 I think are the numbers. They are not on separate COCs, but they need those different GP sample sites in different workorders.

Thanks, Tod

Project Manager
 Pace Analytical - WI
 (608) 232-3300

Tod.Noltemeyer@pacelabs.com



>>> "Siewert, Dennis" <DSiewert@trcsolutions.com> 9/24/2014 10:10 AM >>>

Tod,

At some point, I believe that we will need to provide separate analytical data to the owners of each of the 5 sites that we investigated, including soils and groundwater results. Can we get an output from you which would include 5 separate sub reports for the 5 sites? The reason we would like to do this is to offer each site owner confidential results for their respective site.

Please let me know if this is something you could help us out with.

Thanks,

Dennis

Dennis S. Siewert
 Senior Designer
 (Mechanical & Electrical)



708 Heartland Trail, Suite 3000 Madison, WI
 T: 608.826.3659 | F: 608.826.3941 | C: 608.235.7084

Follow us on [LinkedIn](#) or [Twitter](#) | www.trcsolutions.com

This email has been scanned by the Symantec Email Security.cloud service.
 For more information please visit <http://www.symanteccloud.com>

Sample Condition Upon Receipt

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

Pace Analytical™

Project #:

WO#: 40103983

Client Name: TRC

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Waltco
Tracking #: 640060-1/2/3



40103983

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: 20 / Corr:

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Person examining contents:

Date: 9/24/14

Initials: RMS

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 ☐ N/A	Date/Time: <u>9/24/14</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>ORD hold up 9/27</u> <u>RMS 9/24/14</u>
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. <u>9/5 and 10/5 12/20 1/6/5</u>
Sample Labels match COC:	☐ Yes ☒ No ☐ N/A	12. <u>times on VOA 2 different for 007, 8, 9, 12, 15, 30</u> <u>label washed off VOA 008, see comments RMS 9/24/14</u>
-Includes date/time/ID/Analysis Matrix:		
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 <u>RMS</u> 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): <u>327</u>		

Client Notification/ Resolution:

Person Contacted:

Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

013 VOA and GRO ID is "60 11-2 12.5-15", no sample times 001-006 VOA, 010, 011, 16-25
17 18, 29, 31-36 VOA, no sample times on 40x soils except 5, 6, 13, 14 RMS 9/24/14

Project Manager Review:

JJ for TN

Date:

9/24/14

October 08, 2014

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

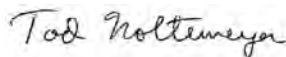
RE: Project: 223432 WINNECONNE Site 8
Pace Project No.: 40103982

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2014. 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,



Tod Noltemeyer
tod.noltemeyer@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

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

New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40103982001	GP-8-1 5-7.5	Solid	09/17/14 09:00	09/24/14 08:35
40103982002	GP-8-1 12.5-15	Solid	09/17/14 09:00	09/24/14 08:35
40103982003	GP-8-2 2.5-5	Solid	09/17/14 09:00	09/24/14 08:35
40103982004	GP-8-2 7.5-10	Solid	09/17/14 09:00	09/24/14 08:35
40103982005	GP-8-3 5-7.5	Solid	09/17/14 09:00	09/24/14 08:35
40103982006	GP-8-3 12.5-15	Solid	09/17/14 09:00	09/24/14 08:35
40103982007	GP-8-1/TW8-1	Water	09/17/14 09:00	09/24/14 08:35
40103982008	GP-8-2/TW8-2	Water	09/17/14 09:00	09/24/14 08:35
40103982009	GP-8-3/TW8-3	Water	09/17/14 09:00	09/24/14 08:35
40103942006	TRC-8-1	Water	09/22/14 14:52	09/24/14 08:35
40103942008	TRIP BLANK	Water	09/22/14 00:00	09/24/14 08:35

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103982001	GP-8-1 5-7.5	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982002	GP-8-1 12.5-15	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982003	GP-8-2 2.5-5	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982004	GP-8-2 7.5-10	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982005	GP-8-3 5-7.5	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982006	GP-8-3 12.5-15	WI MOD DRO	CAC	1	PASI-G
		EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
40103982007	GP-8-1/TW8-1	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 6010	DLB	7	PASI-G
40103982008	GP-8-2/TW8-2	EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 6010	DLB	7	PASI-G
40103982009	GP-8-3/TW8-3	EPA 6010	DLB	7	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103942006	TRC-8-1	EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
40103942008	TRIP BLANK	EPA 8260	HNW	64	PASI-G
		EPA 8260	HNW	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
40103982001	GP-8-1 5-7.5					
WI MOD DRO	Diesel Range Organics	448	mg/kg	17.5	09/29/14 13:33	T4
EPA 6010	Arsenic	3.5	mg/kg	1.9	09/26/14 16:20	
EPA 6010	Barium	94.9	mg/kg	0.47	09/26/14 16:20	
EPA 6010	Cadmium	1.1	mg/kg	0.47	09/26/14 16:20	
EPA 6010	Chromium	12.0	mg/kg	0.47	09/26/14 16:20	
EPA 6010	Lead	167	mg/kg	0.93	09/26/14 16:20	
EPA 7471	Mercury	14.7	mg/kg	0.30	10/02/14 12:41	
EPA 8270 by SIM	Acenaphthylene	30.8J	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Anthracene	65.4	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Benzo(a)anthracene	156	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Benzo(a)pyrene	174	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Benzo(b)fluoranthene	136	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Benzo(g,h,i)perylene	93.2	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Benzo(k)fluoranthene	140	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Chrysene	226	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Dibenz(a,h)anthracene	36.1	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Fluoranthene	332	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	76.8	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	1-Methylnaphthalene	175	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	2-Methylnaphthalene	220	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Naphthalene	170	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Phenanthrene	252	ug/kg	33.3	09/26/14 22:17	
EPA 8270 by SIM	Pyrene	301	ug/kg	33.3	09/26/14 22:17	
EPA 8260	Methylene Chloride	54.2J	ug/kg	120	09/25/14 18:07	
EPA 8260	Toluene	85.7J	ug/kg	120	09/25/14 18:07	
EPA 8260	p-Isopropyltoluene	572	ug/kg	120	09/25/14 18:07	
40103982002	GP-8-1 12.5-15					
WI MOD DRO	Diesel Range Organics	1.6J	mg/kg	1.7	09/29/14 12:20	
EPA 6010	Arsenic	2.1	mg/kg	1.9	09/26/14 16:23	
EPA 6010	Barium	21.8	mg/kg	2.4	09/29/14 18:38	
EPA 6010	Chromium	8.7	mg/kg	0.48	09/26/14 16:23	
EPA 6010	Lead	3.6	mg/kg	0.97	09/26/14 16:23	
EPA 7471	Mercury	0.0032J	mg/kg	0.0059	10/02/14 12:32	
EPA 8260	Methylene Chloride	35.3J	ug/kg	60.0	09/25/14 15:29	
40103982003	GP-8-2 2.5-5					
WI MOD DRO	Diesel Range Organics	38.4	mg/kg	2.2	09/29/14 13:06	T4
EPA 6010	Arsenic	6.6	mg/kg	1.9	09/26/14 16:25	
EPA 6010	Barium	79.5	mg/kg	2.3	09/29/14 18:40	
EPA 6010	Cadmium	0.34J	mg/kg	0.47	09/26/14 16:25	
EPA 6010	Chromium	8.8	mg/kg	0.47	09/26/14 16:25	
EPA 6010	Lead	37.4	mg/kg	0.94	09/26/14 16:25	
EPA 7471	Mercury	0.023	mg/kg	0.0061	10/02/14 11:48	
EPA 8270 by SIM	Acenaphthene	<8.3	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Acenaphthylene	64.1	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Anthracene	148	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Benzo(a)anthracene	120	ug/kg	16.7	09/26/14 23:25	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE
Pace Project No.: 40103982

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103982003	GP-8-2 2.5-5					
EPA 8270 by SIM	Benzo(a)pyrene	169	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Benzo(b)fluoranthene	233	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Benzo(g,h,i)perylene	84.5	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Benzo(k)fluoranthene	136	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Chrysene	192	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Dibenz(a,h)anthracene	34.4	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Fluoranthene	165	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Fluorene	22.2	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	77.7	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	1-Methylnaphthalene	139	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	2-Methylnaphthalene	174	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Naphthalene	90.6	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Phenanthrene	201	ug/kg	16.7	09/26/14 23:25	
EPA 8270 by SIM	Pyrene	158	ug/kg	16.7	09/26/14 23:25	
EPA 8260	1,2,4-Trimethylbenzene	39.9J	ug/kg	60.0	09/25/14 15:51	
EPA 8260	Toluene	35.6J	ug/kg	60.0	09/25/14 15:51	
EPA 8260	o-Xylene	33.0J	ug/kg	60.0	09/25/14 15:51	
40103982004	GP-8-2 7.5-10					
WI MOD DRO	Diesel Range Organics	9.8	mg/kg	1.7	09/29/14 10:47	T4
EPA 6010	Arsenic	3.0	mg/kg	1.8	09/26/14 16:27	
EPA 6010	Barium	65.2	mg/kg	2.2	09/29/14 18:42	
EPA 6010	Chromium	20.2	mg/kg	0.44	09/26/14 16:27	
EPA 6010	Lead	4.3	mg/kg	0.88	09/26/14 16:27	
EPA 7471	Mercury	0.0050J	mg/kg	0.0067	10/02/14 11:25	
EPA 8270 by SIM	Fluoranthene	9.5J	ug/kg	16.7	09/26/14 17:26	
EPA 8270 by SIM	Phenanthrene	8.4J	ug/kg	16.7	09/26/14 17:26	
EPA 8260	Methylene Chloride	31.0J	ug/kg	60.0	09/25/14 16:14	
40103982005	GP-8-3 5-7.5					
WI MOD DRO	Diesel Range Organics	31.1	mg/kg	1.9	09/29/14 12:47	T4
EPA 6010	Arsenic	2.5	mg/kg	1.8	09/26/14 16:30	
EPA 6010	Barium	43.0	mg/kg	0.44	09/26/14 16:30	
EPA 6010	Cadmium	0.26J	mg/kg	0.44	09/26/14 16:30	
EPA 6010	Chromium	8.7	mg/kg	0.44	09/26/14 16:30	
EPA 6010	Lead	70.1	mg/kg	0.89	09/26/14 16:30	
EPA 7471	Mercury	0.12	mg/kg	0.0066	10/02/14 11:50	
EPA 8270 by SIM	Acenaphthene	9.8J	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Acenaphthylene	14.9J	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Anthracene	82.2	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Benzo(a)anthracene	173	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Benzo(a)pyrene	157	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Benzo(b)fluoranthene	112	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Benzo(g,h,i)perylene	92.9	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Benzo(k)fluoranthene	146	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Chrysene	188	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Dibenz(a,h)anthracene	23.0	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Fluoranthene	417	ug/kg	16.7	09/26/14 20:34	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103982005	GP-8-3 5-7.5					
EPA 8270 by SIM	Fluorene	17.6	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	79.6	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Naphthalene	14.3J	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Phenanthrene	210	ug/kg	16.7	09/26/14 20:34	
EPA 8270 by SIM	Pyrene	365	ug/kg	16.7	09/26/14 20:34	
EPA 8260	Methylene Chloride	25.2J	ug/kg	60.0	09/25/14 16:37	
40103982006	GP-8-3 12.5-15					
WI MOD DRO	Diesel Range Organics	6.3	mg/kg	1.7	09/29/14 12:38	T4
EPA 6010	Arsenic	3.9	mg/kg	1.9	09/26/14 16:32	
EPA 6010	Barium	71.2	mg/kg	2.3	09/29/14 18:44	
EPA 6010	Chromium	19.1	mg/kg	0.46	09/26/14 16:32	
EPA 6010	Lead	9.6	mg/kg	0.93	09/26/14 16:32	
EPA 7471	Mercury	0.0059J	mg/kg	0.0060	10/02/14 11:53	
EPA 8270 by SIM	Acenaphthene	18.5	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Acenaphthylene	51.8	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Anthracene	141	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Benzo(a)anthracene	265	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Benzo(a)pyrene	241	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Benzo(b)fluoranthene	183	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Benzo(g,h,i)perylene	142	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Benzo(k)fluoranthene	200	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Chrysene	277	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Dibenz(a,h)anthracene	35.8	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Fluoranthene	677	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Fluorene	66.4	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	126	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Naphthalene	15.5J	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Phenanthrene	451	ug/kg	16.7	09/26/14 20:17	
EPA 8270 by SIM	Pyrene	567	ug/kg	16.7	09/26/14 20:17	
EPA 8260	Methylene Chloride	30.9J	ug/kg	60.0	09/25/14 16:59	
40103982007	GP-8-1/TW8-1					
EPA 6010	Barium, Dissolved	574	ug/L	5.0	10/01/14 13:13	
EPA 8260	p-Isopropyltoluene	3.8	ug/L	1.0	09/29/14 11:54	
EPA 8260	Toluene	0.94J	ug/L	1.0	09/29/14 11:54	
40103982008	GP-8-2/TW8-2					
EPA 6010	Barium, Dissolved	122	ug/L	5.0	10/01/14 18:58	
EPA 6010	Chromium, Dissolved	2.0J	ug/L	5.0	10/01/14 18:58	
EPA 6010	Lead, Dissolved	5.7J	ug/L	7.5	10/01/14 18:58	
EPA 8260	Methyl-tert-butyl ether	0.27J	ug/L	1.0	09/29/14 12:17	
40103982009	GP-8-3/TW8-3					
EPA 6010	Barium, Dissolved	176	ug/L	5.0	10/01/14 13:15	
EPA 8260	m&p-Xylene	1.3J	ug/L	2.0	09/29/14 12:39	
EPA 8260	o-Xylene	0.69J	ug/L	1.0	09/29/14 12:39	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103942006	TRC-8-1					
EPA 6010	Barium, Dissolved	228	ug/L	5.0	10/03/14 15:41	
EPA 6010	Lead, Dissolved	3.6J	ug/L	7.5	10/03/14 15:41	
EPA 8260	p-Isopropyltoluene	146	ug/L	1.0	09/29/14 22:14	

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: WI MOD DRO

Description: WIDRO GCS

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24385

T4: Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

- GP-8-1 5-7.5 (Lab ID: 40103982001)
 - Diesel Range Organics
- GP-8-2 2.5-5 (Lab ID: 40103982003)
 - Diesel Range Organics
- GP-8-2 7.5-10 (Lab ID: 40103982004)
 - Diesel Range Organics
- GP-8-3 12.5-15 (Lab ID: 40103982006)
 - Diesel Range Organics
- GP-8-3 5-7.5 (Lab ID: 40103982005)
 - Diesel Range Organics

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 6010

Description: 6010 MET ICP

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

4 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 7471

Description: 7471 Mercury

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 8270 by SIM

Description: 8270 MSSV PAH by SIM

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

QC Batch: MSV/25898

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: MSV/25898

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GP-8-1 5-7.5 (Lab ID: 40103982001)
- Dibromofluoromethane (S)

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Method: EPA 8260

Description: 8260 MSV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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

- GP-8-1/TW8-1 (Lab ID: 40103982007)
- GP-8-3/TW8-3 (Lab ID: 40103982009)

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

QC Batch: MSV/25920

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40104103012

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

- MS (Lab ID: 1053739)
 - Bromomethane
 - trans-1,3-Dichloropropene

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 5-7.5 **Lab ID: 40103982001** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	448	mg/kg	17.5	7.0	10	09/25/14 14:08	09/29/14 13:33		T4
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.5	mg/kg	1.9	0.59	1	09/26/14 08:30	09/26/14 16:20	7440-38-2	
Barium	94.9	mg/kg	0.47	0.11	1	09/26/14 08:30	09/26/14 16:20	7440-39-3	
Cadmium	1.1	mg/kg	0.47	0.062	1	09/26/14 08:30	09/26/14 16:20	7440-43-9	
Chromium	12.0	mg/kg	0.47	0.18	1	09/26/14 08:30	09/26/14 16:20	7440-47-3	
Lead	167	mg/kg	0.93	0.40	1	09/26/14 08:30	09/26/14 16:20	7439-92-1	
Selenium	<0.72	mg/kg	1.9	0.72	1	09/26/14 08:30	09/26/14 16:20	7782-49-2	
Silver	<0.26	mg/kg	0.93	0.26	1	09/26/14 08:30	09/26/14 16:20	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	14.7	mg/kg	0.30	0.15	50	10/01/14 11:50	10/02/14 12:41	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<16.7	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	83-32-9	
Acenaphthylene	30.8J	ug/kg	33.3	14.9	1	09/26/14 09:01	09/26/14 22:17	208-96-8	
Anthracene	65.4	ug/kg	33.3	17.3	1	09/26/14 09:01	09/26/14 22:17	120-12-7	
Benzo(a)anthracene	156	ug/kg	33.3	11.6	1	09/26/14 09:01	09/26/14 22:17	56-55-3	
Benzo(a)pyrene	174	ug/kg	33.3	11.9	1	09/26/14 09:01	09/26/14 22:17	50-32-8	
Benzo(b)fluoranthene	136	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	205-99-2	
Benzo(g,h,i)perylene	93.2	ug/kg	33.3	12.7	1	09/26/14 09:01	09/26/14 22:17	191-24-2	
Benzo(k)fluoranthene	140	ug/kg	33.3	18.4	1	09/26/14 09:01	09/26/14 22:17	207-08-9	
Chrysene	226	ug/kg	33.3	15.4	1	09/26/14 09:01	09/26/14 22:17	218-01-9	
Dibenz(a,h)anthracene	36.1	ug/kg	33.3	12.2	1	09/26/14 09:01	09/26/14 22:17	53-70-3	
Fluoranthene	332	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	206-44-0	
Fluorene	<16.7	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	86-73-7	
Indeno(1,2,3-cd)pyrene	76.8	ug/kg	33.3	12.7	1	09/26/14 09:01	09/26/14 22:17	193-39-5	
1-Methylnaphthalene	175	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	90-12-0	
2-Methylnaphthalene	220	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	91-57-6	
Naphthalene	170	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	91-20-3	
Phenanthrene	252	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	85-01-8	
Pyrene	301	ug/kg	33.3	16.7	1	09/26/14 09:01	09/26/14 22:17	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	44	%	40-130		1	09/26/14 09:01	09/26/14 22:17	321-60-8	
Terphenyl-d14 (S)	44	%	40-130		1	09/26/14 09:01	09/26/14 22:17	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	630-20-6	W
1,1,1-Trichloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	71-55-6	W
1,1,2,2-Tetrachloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	79-34-5	W
1,1,2-Trichloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	79-00-5	W
1,1-Dichloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-34-3	W
1,1-Dichloroethene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-35-4	W
1,1-Dichloropropene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 5-7.5 Lab ID: 40103982001 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	87-61-6	W
1,2,3-Trichloropropane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	96-18-4	W
1,2,4-Trichlorobenzene	<95.1	ug/kg	500	95.1	2	09/25/14 07:40	09/25/14 18:07	120-82-1	W
1,2,4-Trimethylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	95-63-6	W
1,2-Dibromo-3-chloropropane	<182	ug/kg	500	182	2	09/25/14 07:40	09/25/14 18:07	96-12-8	W
1,2-Dibromoethane (EDB)	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	106-93-4	W
1,2-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	95-50-1	W
1,2-Dichloroethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	107-06-2	W
1,2-Dichloropropane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	78-87-5	W
1,3,5-Trimethylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	108-67-8	W
1,3-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	541-73-1	W
1,3-Dichloropropane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	142-28-9	W
1,4-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	106-46-7	W
2,2-Dichloropropane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	594-20-7	W
2-Chlorotoluene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	95-49-8	W
4-Chlorotoluene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	106-43-4	W
Benzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	71-43-2	W
Bromobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	108-86-1	W
Bromochloromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	74-97-5	W
Bromodichloromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-27-4	W
Bromoform	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-25-2	W
Bromomethane	<140	ug/kg	500	140	2	09/25/14 07:40	09/25/14 18:07	74-83-9	W
Carbon tetrachloride	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	56-23-5	W
Chlorobenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	108-90-7	W
Chloroethane	<134	ug/kg	500	134	2	09/25/14 07:40	09/25/14 18:07	75-00-3	W
Chloroform	<92.9	ug/kg	500	92.9	2	09/25/14 07:40	09/25/14 18:07	67-66-3	W
Chloromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	74-87-3	W
Dibromochloromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	124-48-1	W
Dibromomethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	74-95-3	W
Dichlorodifluoromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-71-8	W
Diisopropyl ether	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	108-20-3	W
Ethylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	100-41-4	W
Hexachloro-1,3-butadiene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	87-68-3	W
Isopropylbenzene (Cumene)	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	98-82-8	W
Methyl-tert-butyl ether	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	1634-04-4	W
Methylene Chloride	54.2J	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-09-2	
Naphthalene	<80.1	ug/kg	500	80.1	2	09/25/14 07:40	09/25/14 18:07	91-20-3	W
Styrene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	100-42-5	W
Tetrachloroethene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	127-18-4	W
Toluene	85.7J	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	108-88-3	
Trichloroethene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	79-01-6	W
Trichlorofluoromethane	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-69-4	W
Vinyl chloride	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	75-01-4	W
cis-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	156-59-2	W
cis-1,3-Dichloropropene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 5-7.5 **Lab ID: 40103982001** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<100	ug/kg	240	100	2	09/25/14 07:40	09/25/14 18:07	179601-23-1	W
n-Butylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	104-51-8	W
n-Propylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	103-65-1	W
o-Xylene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	95-47-6	W
p-Isopropyltoluene	572	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	99-87-6	
sec-Butylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	135-98-8	W
tert-Butylbenzene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	98-06-6	W
trans-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	156-60-5	W
trans-1,3-Dichloropropene	<50.0	ug/kg	120	50.0	2	09/25/14 07:40	09/25/14 18:07	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	68	%	37-152		2	09/25/14 07:40	09/25/14 18:07	1868-53-7	D3
Toluene-d8 (S)	64	%	38-154		2	09/25/14 07:40	09/25/14 18:07	2037-26-5	
4-Bromofluorobenzene (S)	58	%	39-139		2	09/25/14 07:40	09/25/14 18:07	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 12.5-15 **Lab ID: 40103982002** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	1.6J	mg/kg	1.7	0.67	1	09/25/14 14:08	09/29/14 12:20		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.1	mg/kg	1.9	0.62	1	09/26/14 08:30	09/26/14 16:23	7440-38-2	
Barium	21.8	mg/kg	2.4	0.58	5	09/26/14 08:30	09/29/14 18:38	7440-39-3	
Cadmium	<0.064	mg/kg	0.48	0.064	1	09/26/14 08:30	09/26/14 16:23	7440-43-9	
Chromium	8.7	mg/kg	0.48	0.19	1	09/26/14 08:30	09/26/14 16:23	7440-47-3	
Lead	3.6	mg/kg	0.97	0.42	1	09/26/14 08:30	09/26/14 16:23	7439-92-1	
Selenium	<0.75	mg/kg	1.9	0.75	1	09/26/14 08:30	09/26/14 16:23	7782-49-2	
Silver	<0.27	mg/kg	0.97	0.27	1	09/26/14 08:30	09/26/14 16:23	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0032J	mg/kg	0.0059	0.0029	1	10/01/14 11:50	10/02/14 12:32	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	83-32-9	
Acenaphthylene	<7.5	ug/kg	16.7	7.5	1	09/26/14 09:01	09/26/14 18:51	208-96-8	
Anthracene	<8.6	ug/kg	16.7	8.6	1	09/26/14 09:01	09/26/14 18:51	120-12-7	
Benzo(a)anthracene	<5.8	ug/kg	16.7	5.8	1	09/26/14 09:01	09/26/14 18:51	56-55-3	
Benzo(a)pyrene	<6.0	ug/kg	16.7	6.0	1	09/26/14 09:01	09/26/14 18:51	50-32-8	
Benzo(b)fluoranthene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	205-99-2	
Benzo(g,h,i)perylene	<6.3	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 18:51	191-24-2	
Benzo(k)fluoranthene	<9.2	ug/kg	16.7	9.2	1	09/26/14 09:01	09/26/14 18:51	207-08-9	
Chrysene	<7.7	ug/kg	16.7	7.7	1	09/26/14 09:01	09/26/14 18:51	218-01-9	
Dibenz(a,h)anthracene	<6.1	ug/kg	16.7	6.1	1	09/26/14 09:01	09/26/14 18:51	53-70-3	
Fluoranthene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	206-44-0	
Fluorene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	86-73-7	
Indeno(1,2,3-cd)pyrene	<6.3	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 18:51	193-39-5	
1-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	90-12-0	
2-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	91-57-6	
Naphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	91-20-3	
Phenanthrene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	85-01-8	
Pyrene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 18:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	50 %		40-130		1	09/26/14 09:01	09/26/14 18:51	321-60-8	
Terphenyl-d14 (S)	51 %		40-130		1	09/26/14 09:01	09/26/14 18:51	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 12.5-15 Lab ID: 40103982002 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 15:29	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 15:29	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 15:29	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 15:29	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 15:29	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	1634-04-4	W
Methylene Chloride	35.3J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 15:29	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1 12.5-15 **Lab ID: 40103982002** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 15:29	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:29	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	101	%	37-152		1	09/25/14 07:40	09/25/14 15:29	1868-53-7	
Toluene-d8 (S)	95	%	38-154		1	09/25/14 07:40	09/25/14 15:29	2037-26-5	
4-Bromofluorobenzene (S)	97	%	39-139		1	09/25/14 07:40	09/25/14 15:29	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 2.5-5 **Lab ID: 40103982003** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	38.4 mg/kg		2.2	0.90	1	09/25/14 14:08	09/29/14 13:06		T4
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	6.6 mg/kg		1.9	0.60	1	09/26/14 08:30	09/26/14 16:25	7440-38-2	
Barium	79.5 mg/kg		2.3	0.56	5	09/26/14 08:30	09/29/14 18:40	7440-39-3	
Cadmium	0.34J mg/kg		0.47	0.062	1	09/26/14 08:30	09/26/14 16:25	7440-43-9	
Chromium	8.8 mg/kg		0.47	0.18	1	09/26/14 08:30	09/26/14 16:25	7440-47-3	
Lead	37.4 mg/kg		0.94	0.40	1	09/26/14 08:30	09/26/14 16:25	7439-92-1	
Selenium	<0.72 mg/kg		1.9	0.72	1	09/26/14 08:30	09/26/14 16:25	7782-49-2	
Silver	<0.26 mg/kg		0.94	0.26	1	09/26/14 08:30	09/26/14 16:25	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.023 mg/kg		0.0061	0.0030	1	10/01/14 11:50	10/02/14 11:48	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	83-32-9	
Acenaphthylene	64.1 ug/kg		16.7	7.5	1	09/26/14 09:01	09/26/14 23:25	208-96-8	
Anthracene	148 ug/kg		16.7	8.6	1	09/26/14 09:01	09/26/14 23:25	120-12-7	
Benzo(a)anthracene	120 ug/kg		16.7	5.8	1	09/26/14 09:01	09/26/14 23:25	56-55-3	
Benzo(a)pyrene	169 ug/kg		16.7	6.0	1	09/26/14 09:01	09/26/14 23:25	50-32-8	
Benzo(b)fluoranthene	233 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	205-99-2	
Benzo(g,h,i)perylene	84.5 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 23:25	191-24-2	
Benzo(k)fluoranthene	136 ug/kg		16.7	9.2	1	09/26/14 09:01	09/26/14 23:25	207-08-9	
Chrysene	192 ug/kg		16.7	7.7	1	09/26/14 09:01	09/26/14 23:25	218-01-9	
Dibenz(a,h)anthracene	34.4 ug/kg		16.7	6.1	1	09/26/14 09:01	09/26/14 23:25	53-70-3	
Fluoranthene	165 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	206-44-0	
Fluorene	22.2 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	86-73-7	
Indeno(1,2,3-cd)pyrene	77.7 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 23:25	193-39-5	
1-Methylnaphthalene	139 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	90-12-0	
2-Methylnaphthalene	174 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	91-57-6	
Naphthalene	90.6 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	91-20-3	
Phenanthrene	201 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	85-01-8	
Pyrene	158 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 23:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	56 %		40-130		1	09/26/14 09:01	09/26/14 23:25	321-60-8	
Terphenyl-d14 (S)	58 %		40-130		1	09/26/14 09:01	09/26/14 23:25	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 2.5-5 **Lab ID:** 40103982003 **Collected:** 09/17/14 09:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 15:51	120-82-1	W
1,2,4-Trimethylbenzene	39.9J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	95-63-6	
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 15:51	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 15:51	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 15:51	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 15:51	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 15:51	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	127-18-4	W
Toluene	35.6J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	108-88-3	
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 2.5-5 **Lab ID:** 40103982003 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 15:51	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	103-65-1	W
o-Xylene	33.0J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	95-47-6	
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 15:51	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	87	%	37-152		1	09/25/14 07:40	09/25/14 15:51	1868-53-7	
Toluene-d8 (S)	85	%	38-154		1	09/25/14 07:40	09/25/14 15:51	2037-26-5	
4-Bromofluorobenzene (S)	79	%	39-139		1	09/25/14 07:40	09/25/14 15:51	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 7.5-10 **Lab ID: 40103982004** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	9.8 mg/kg		1.7	0.69	1	09/25/14 14:08	09/29/14 10:47		T4
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.0 mg/kg		1.8	0.56	1	09/26/14 08:30	09/26/14 16:27	7440-38-2	
Barium	65.2 mg/kg		2.2	0.52	5	09/26/14 08:30	09/29/14 18:42	7440-39-3	
Cadmium	<0.058 mg/kg		0.44	0.058	1	09/26/14 08:30	09/26/14 16:27	7440-43-9	
Chromium	20.2 mg/kg		0.44	0.17	1	09/26/14 08:30	09/26/14 16:27	7440-47-3	
Lead	4.3 mg/kg		0.88	0.38	1	09/26/14 08:30	09/26/14 16:27	7439-92-1	
Selenium	<0.68 mg/kg		1.8	0.68	1	09/26/14 08:30	09/26/14 16:27	7782-49-2	
Silver	<0.24 mg/kg		0.88	0.24	1	09/26/14 08:30	09/26/14 16:27	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0050J mg/kg		0.0067	0.0034	1	10/01/14 11:50	10/02/14 11:25	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	83-32-9	
Acenaphthylene	<7.5 ug/kg		16.7	7.5	1	09/26/14 09:01	09/26/14 17:26	208-96-8	
Anthracene	<8.6 ug/kg		16.7	8.6	1	09/26/14 09:01	09/26/14 17:26	120-12-7	
Benzo(a)anthracene	<5.8 ug/kg		16.7	5.8	1	09/26/14 09:01	09/26/14 17:26	56-55-3	
Benzo(a)pyrene	<6.0 ug/kg		16.7	6.0	1	09/26/14 09:01	09/26/14 17:26	50-32-8	
Benzo(b)fluoranthene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	205-99-2	
Benzo(g,h,i)perylene	<6.3 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 17:26	191-24-2	
Benzo(k)fluoranthene	<9.2 ug/kg		16.7	9.2	1	09/26/14 09:01	09/26/14 17:26	207-08-9	
Chrysene	<7.7 ug/kg		16.7	7.7	1	09/26/14 09:01	09/26/14 17:26	218-01-9	
Dibenz(a,h)anthracene	<6.1 ug/kg		16.7	6.1	1	09/26/14 09:01	09/26/14 17:26	53-70-3	
Fluoranthene	9.5J ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	206-44-0	
Fluorene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	86-73-7	
Indeno(1,2,3-cd)pyrene	<6.3 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 17:26	193-39-5	
1-Methylnaphthalene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	90-12-0	
2-Methylnaphthalene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	91-57-6	
Naphthalene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	91-20-3	
Phenanthrene	8.4J ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	85-01-8	
Pyrene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 17:26	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58 %		40-130		1	09/26/14 09:01	09/26/14 17:26	321-60-8	
Terphenyl-d14 (S)	62 %		40-130		1	09/26/14 09:01	09/26/14 17:26	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 7.5-10 Lab ID: 40103982004 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 16:14	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 16:14	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 16:14	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 16:14	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 16:14	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	1634-04-4	W
Methylene Chloride	31.0J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 16:14	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2 7.5-10 **Lab ID: 40103982004** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 16:14	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:14	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	107	%	37-152		1	09/25/14 07:40	09/25/14 16:14	1868-53-7	
Toluene-d8 (S)	98	%	38-154		1	09/25/14 07:40	09/25/14 16:14	2037-26-5	
4-Bromofluorobenzene (S)	99	%	39-139		1	09/25/14 07:40	09/25/14 16:14	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 5-7.5 **Lab ID:** 40103982005 **Collected:** 09/17/14 09:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	31.1	mg/kg	1.9	0.77	1	09/25/14 14:08	09/29/14 12:47		T4
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.5	mg/kg	1.8	0.57	1	09/26/14 08:30	09/26/14 16:30	7440-38-2	
Barium	43.0	mg/kg	0.44	0.11	1	09/26/14 08:30	09/26/14 16:30	7440-39-3	
Cadmium	0.26J	mg/kg	0.44	0.059	1	09/26/14 08:30	09/26/14 16:30	7440-43-9	
Chromium	8.7	mg/kg	0.44	0.17	1	09/26/14 08:30	09/26/14 16:30	7440-47-3	
Lead	70.1	mg/kg	0.89	0.38	1	09/26/14 08:30	09/26/14 16:30	7439-92-1	
Selenium	<0.69	mg/kg	1.8	0.69	1	09/26/14 08:30	09/26/14 16:30	7782-49-2	
Silver	<0.25	mg/kg	0.89	0.25	1	09/26/14 08:30	09/26/14 16:30	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.12	mg/kg	0.0066	0.0033	1	10/01/14 11:50	10/02/14 11:50	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	9.8J	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	83-32-9	
Acenaphthylene	14.9J	ug/kg	16.7	7.5	1	09/26/14 09:01	09/26/14 20:34	208-96-8	
Anthracene	82.2	ug/kg	16.7	8.6	1	09/26/14 09:01	09/26/14 20:34	120-12-7	
Benzo(a)anthracene	173	ug/kg	16.7	5.8	1	09/26/14 09:01	09/26/14 20:34	56-55-3	
Benzo(a)pyrene	157	ug/kg	16.7	6.0	1	09/26/14 09:01	09/26/14 20:34	50-32-8	
Benzo(b)fluoranthene	112	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	205-99-2	
Benzo(g,h,i)perylene	92.9	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 20:34	191-24-2	
Benzo(k)fluoranthene	146	ug/kg	16.7	9.2	1	09/26/14 09:01	09/26/14 20:34	207-08-9	
Chrysene	188	ug/kg	16.7	7.7	1	09/26/14 09:01	09/26/14 20:34	218-01-9	
Dibenz(a,h)anthracene	23.0	ug/kg	16.7	6.1	1	09/26/14 09:01	09/26/14 20:34	53-70-3	
Fluoranthene	417	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	206-44-0	
Fluorene	17.6	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	86-73-7	
Indeno(1,2,3-cd)pyrene	79.6	ug/kg	16.7	6.3	1	09/26/14 09:01	09/26/14 20:34	193-39-5	
1-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	90-12-0	
2-Methylnaphthalene	<8.3	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	91-57-6	
Naphthalene	14.3J	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	91-20-3	
Phenanthrene	210	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	85-01-8	
Pyrene	365	ug/kg	16.7	8.3	1	09/26/14 09:01	09/26/14 20:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	54	%	40-130		1	09/26/14 09:01	09/26/14 20:34	321-60-8	
Terphenyl-d14 (S)	65	%	40-130		1	09/26/14 09:01	09/26/14 20:34	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 5-7.5 **Lab ID: 40103982005** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 16:37	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 16:37	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 16:37	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 16:37	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 16:37	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	1634-04-4	W
Methylene Chloride	25.2J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-09-2	
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 16:37	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 5-7.5 **Lab ID:** 40103982005 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 16:37	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:37	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	82	%	37-152		1	09/25/14 07:40	09/25/14 16:37	1868-53-7	
Toluene-d8 (S)	78	%	38-154		1	09/25/14 07:40	09/25/14 16:37	2037-26-5	
4-Bromofluorobenzene (S)	72	%	39-139		1	09/25/14 07:40	09/25/14 16:37	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 12.5-15 **Lab ID: 40103982006** Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	6.3 mg/kg		1.7	0.69	1	09/25/14 14:08	09/29/14 12:38		T4
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.9 mg/kg		1.9	0.59	1	09/26/14 08:30	09/26/14 16:32	7440-38-2	
Barium	71.2 mg/kg		2.3	0.55	5	09/26/14 08:30	09/29/14 18:44	7440-39-3	
Cadmium	<0.061 mg/kg		0.46	0.061	1	09/26/14 08:30	09/26/14 16:32	7440-43-9	
Chromium	19.1 mg/kg		0.46	0.18	1	09/26/14 08:30	09/26/14 16:32	7440-47-3	
Lead	9.6 mg/kg		0.93	0.40	1	09/26/14 08:30	09/26/14 16:32	7439-92-1	
Selenium	<0.72 mg/kg		1.9	0.72	1	09/26/14 08:30	09/26/14 16:32	7782-49-2	
Silver	<0.26 mg/kg		0.93	0.26	1	09/26/14 08:30	09/26/14 16:32	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0059J mg/kg		0.0060	0.0030	1	10/01/14 11:50	10/02/14 11:53	7439-97-6	
8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	18.5 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	83-32-9	
Acenaphthylene	51.8 ug/kg		16.7	7.5	1	09/26/14 09:01	09/26/14 20:17	208-96-8	
Anthracene	141 ug/kg		16.7	8.6	1	09/26/14 09:01	09/26/14 20:17	120-12-7	
Benzo(a)anthracene	265 ug/kg		16.7	5.8	1	09/26/14 09:01	09/26/14 20:17	56-55-3	
Benzo(a)pyrene	241 ug/kg		16.7	6.0	1	09/26/14 09:01	09/26/14 20:17	50-32-8	
Benzo(b)fluoranthene	183 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	205-99-2	
Benzo(g,h,i)perylene	142 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 20:17	191-24-2	
Benzo(k)fluoranthene	200 ug/kg		16.7	9.2	1	09/26/14 09:01	09/26/14 20:17	207-08-9	
Chrysene	277 ug/kg		16.7	7.7	1	09/26/14 09:01	09/26/14 20:17	218-01-9	
Dibenz(a,h)anthracene	35.8 ug/kg		16.7	6.1	1	09/26/14 09:01	09/26/14 20:17	53-70-3	
Fluoranthene	677 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	206-44-0	
Fluorene	66.4 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	86-73-7	
Indeno(1,2,3-cd)pyrene	126 ug/kg		16.7	6.3	1	09/26/14 09:01	09/26/14 20:17	193-39-5	
1-Methylnaphthalene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	90-12-0	
2-Methylnaphthalene	<8.3 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	91-57-6	
Naphthalene	15.5J ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	91-20-3	
Phenanthrene	451 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	85-01-8	
Pyrene	567 ug/kg		16.7	8.3	1	09/26/14 09:01	09/26/14 20:17	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57 %		40-130		1	09/26/14 09:01	09/26/14 20:17	321-60-8	
Terphenyl-d14 (S)	65 %		40-130		1	09/26/14 09:01	09/26/14 20:17	1718-51-0	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	563-58-6	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 12.5-15 Lab ID: 40103982006 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 07:40	09/25/14 16:59	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 07:40	09/25/14 16:59	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 07:40	09/25/14 16:59	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 07:40	09/25/14 16:59	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 07:40	09/25/14 16:59	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	1634-04-4	W
Methylene Chloride	30.9J	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 07:40	09/25/14 16:59	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	10061-01-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3 12.5-15 **Lab ID:** 40103982006 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 07:40	09/25/14 16:59	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 07:40	09/25/14 16:59	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	100	%	37-152		1	09/25/14 07:40	09/25/14 16:59	1868-53-7	
Toluene-d8 (S)	97	%	38-154		1	09/25/14 07:40	09/25/14 16:59	2037-26-5	
4-Bromofluorobenzene (S)	94	%	39-139		1	09/25/14 07:40	09/25/14 16:59	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1/TW8-1 **Lab ID:** 40103982007 **Collected:** 09/17/14 09:00 **Received:** 09/24/14 08:35 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/01/14 13:13	7440-38-2	
Barium, Dissolved	574	ug/L	5.0	1.4	1		10/01/14 13:13	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/01/14 13:13	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/01/14 13:13	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/01/14 13:13	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/01/14 13:13	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/01/14 13:13	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 11:59	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 11:54	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 11:54	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 11:54	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 11:54	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 11:54	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 11:54	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 11:54	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 11:54	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 11:54	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 11:54	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 11:54	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 11:54	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 11:54	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 11:54	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 11:54	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 11:54	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 11:54	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 11:54	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 11:54	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 11:54	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-1/TW8-1 **Lab ID:** 40103982007 **Collected:** 09/17/14 09:00 **Received:** 09/24/14 08:35 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 11:54	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 11:54	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 11:54	98-82-8	
p-Isopropyltoluene	3.8	ug/L	1.0	0.50	1		09/29/14 11:54	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 11:54	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 11:54	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 11:54	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 11:54	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 11:54	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	127-18-4	
Toluene	0.94J	ug/L	1.0	0.50	1		09/29/14 11:54	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 11:54	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 11:54	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 11:54	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 11:54	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 11:54	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 11:54	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 11:54	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 11:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91 %		59-130		1		09/29/14 11:54	460-00-4	pH
Dibromofluoromethane (S)	96 %		70-130		1		09/29/14 11:54	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		09/29/14 11:54	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2/TW8-2 **Lab ID:** 40103982008 **Collected:** 09/17/14 09:00 **Received:** 09/24/14 08:35 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic, Dissolved	<6.8	ug/L	20.0	6.8	1	10/01/14 09:40	10/01/14 18:58	7440-38-2	
Barium, Dissolved	122	ug/L	5.0	1.7	1	10/01/14 09:40	10/01/14 18:58	7440-39-3	
Cadmium, Dissolved	<1.0	ug/L	5.0	1.0	1	10/01/14 09:40	10/01/14 18:58	7440-43-9	
Chromium, Dissolved	2.0J	ug/L	5.0	1.5	1	10/01/14 09:40	10/01/14 18:58	7440-47-3	
Lead, Dissolved	5.7J	ug/L	7.5	1.6	1	10/01/14 09:40	10/01/14 18:58	7439-92-1	
Selenium, Dissolved	<6.8	ug/L	20.0	6.8	1	10/01/14 09:40	10/01/14 18:58	7782-49-2	
Silver, Dissolved	<3.2	ug/L	10.0	3.2	1	10/01/14 09:40	10/01/14 18:58	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 12:01	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 12:17	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 12:17	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 12:17	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 12:17	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 12:17	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 12:17	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 12:17	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 12:17	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 12:17	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 12:17	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 12:17	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 12:17	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 12:17	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 12:17	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 12:17	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 12:17	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 12:17	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 12:17	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 12:17	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 12:17	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-2/TW8-2 Lab ID: 40103982008 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 12:17	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 12:17	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 12:17	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 12:17	75-09-2	
Methyl-tert-butyl ether	0.27J	ug/L	1.0	0.17	1		09/29/14 12:17	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 12:17	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 12:17	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 12:17	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 12:17	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 12:17	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 12:17	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 12:17	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 12:17	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 12:17	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 12:17	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	88 %		59-130		1		09/29/14 12:17	460-00-4	
Dibromofluoromethane (S)	96 %		70-130		1		09/29/14 12:17	1868-53-7	
Toluene-d8 (S)	97 %		70-130		1		09/29/14 12:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3/TW8-3 Lab ID: 40103982009 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/01/14 13:15	7440-38-2	
Barium, Dissolved	176	ug/L	5.0	1.4	1		10/01/14 13:15	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/01/14 13:15	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/01/14 13:15	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/01/14 13:15	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/01/14 13:15	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/01/14 13:15	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 12:03	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 12:39	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 12:39	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 12:39	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 12:39	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 12:39	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 12:39	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 12:39	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 12:39	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 12:39	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 12:39	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 12:39	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 12:39	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 12:39	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 12:39	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 12:39	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 12:39	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 12:39	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 12:39	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 12:39	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 12:39	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: GP-8-3/TW8-3 Lab ID: 40103982009 Collected: 09/17/14 09:00 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 12:39	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 12:39	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 12:39	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 12:39	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 12:39	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 12:39	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 12:39	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 12:39	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 12:39	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 12:39	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 12:39	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 12:39	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 12:39	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 12:39	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 12:39	75-01-4	
m&p-Xylene	1.3J	ug/L	2.0	1.0	1		09/29/14 12:39	179601-23-1	
o-Xylene	0.69J	ug/L	1.0	0.50	1		09/29/14 12:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90 %		59-130		1		09/29/14 12:39	460-00-4	pH
Dibromofluoromethane (S)	97 %		70-130		1		09/29/14 12:39	1868-53-7	
Toluene-d8 (S)	95 %		70-130		1		09/29/14 12:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: TRC-8-1 **Lab ID: 40103942006** Collected: 09/22/14 14:52 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:41	7440-38-2	
Barium, Dissolved	228	ug/L	5.0	1.4	1		10/03/14 15:41	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:41	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:41	7440-47-3	
Lead, Dissolved	3.6J	ug/L	7.5	3.0	1		10/03/14 15:41	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:41	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:41	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:53	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 22:14	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 22:14	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 22:14	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 22:14	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 22:14	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 22:14	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 22:14	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 22:14	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 22:14	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 22:14	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 22:14	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 22:14	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 22:14	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 22:14	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 22:14	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 22:14	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 22:14	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 22:14	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 22:14	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 22:14	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: TRC-8-1 **Lab ID: 40103942006** Collected: 09/22/14 14:52 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 22:14	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 22:14	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 22:14	98-82-8	
p-Isopropyltoluene	146	ug/L	1.0	0.50	1		09/29/14 22:14	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 22:14	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 22:14	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 22:14	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 22:14	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 22:14	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 22:14	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 22:14	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 22:14	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 22:14	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 22:14	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 22:14	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 22:14	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 22:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92 %		59-130		1		09/29/14 22:14	460-00-4	
Dibromofluoromethane (S)	92 %		70-130		1		09/29/14 22:14	1868-53-7	
Toluene-d8 (S)	93 %		70-130		1		09/29/14 22:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: TRIP BLANK **Lab ID: 40103942008** Collected: 09/22/14 00:00 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/30/14 08:51	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/30/14 08:51	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/30/14 08:51	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/30/14 08:51	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/30/14 08:51	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/30/14 08:51	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/30/14 08:51	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/30/14 08:51	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/30/14 08:51	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/30/14 08:51	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/30/14 08:51	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/30/14 08:51	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/30/14 08:51	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/30/14 08:51	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/30/14 08:51	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/30/14 08:51	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/30/14 08:51	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/30/14 08:51	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/30/14 08:51	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/30/14 08:51	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/30/14 08:51	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/30/14 08:51	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/30/14 08:51	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/30/14 08:51	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/30/14 08:51	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/30/14 08:51	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/30/14 08:51	630-20-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Sample: TRIP BLANK		Lab ID: 40103942008		Collected: 09/22/14 00:00		Received: 09/24/14 08:35		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/30/14 08:51	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/30/14 08:51	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/30/14 08:51	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/30/14 08:51	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/30/14 08:51	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/30/14 08:51	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/30/14 08:51	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/30/14 08:51	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/30/14 08:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	59-130		1		09/30/14 08:51	460-00-4	
Dibromofluoromethane (S)	92	%	70-130		1		09/30/14 08:51	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		09/30/14 08:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch:	ICP/9629	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	40103982007, 40103982009		

METHOD BLANK: 1055192 Matrix: Water

Associated Lab Samples: 40103982007, 40103982009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/01/14 13:02	
Barium, Dissolved	ug/L	<1.4	5.0	10/01/14 13:02	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/01/14 13:02	
Chromium, Dissolved	ug/L	<2.1	5.0	10/01/14 13:02	
Lead, Dissolved	ug/L	<3.0	7.5	10/01/14 13:02	
Selenium, Dissolved	ug/L	<6.7	20.0	10/01/14 13:02	
Silver, Dissolved	ug/L	<2.7	10.0	10/01/14 13:02	

LABORATORY CONTROL SAMPLE: 1055193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	512	102	80-120	
Barium, Dissolved	ug/L	500	476	95	80-120	
Cadmium, Dissolved	ug/L	500	489	98	80-120	
Chromium, Dissolved	ug/L	500	527	105	80-120	
Lead, Dissolved	ug/L	500	515	103	80-120	
Selenium, Dissolved	ug/L	500	504	101	80-120	
Silver, Dissolved	ug/L	250	252	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055194 1055195

Parameter	Units	40103984005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	499	496	100	99	75-125	1	20	
Barium, Dissolved	ug/L	69.3	500	500	516	519	89	90	75-125	1	20	
Cadmium, Dissolved	ug/L	3.4J	500	500	478	480	95	95	75-125	1	20	
Chromium, Dissolved	ug/L	<2.1	500	500	503	499	100	100	75-125	1	20	
Lead, Dissolved	ug/L	<3.0	500	500	493	494	98	98	75-125	0	20	
Selenium, Dissolved	ug/L	<6.7	500	500	495	505	99	101	75-125	2	20	
Silver, Dissolved	ug/L	<2.7	250	250	228	229	91	92	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch:	ICP/9643	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	40103942006		

METHOD BLANK: 1057491 Matrix: Water
Associated Lab Samples: 40103942006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/03/14 15:17	
Barium, Dissolved	ug/L	<1.4	5.0	10/03/14 15:17	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/03/14 15:17	
Chromium, Dissolved	ug/L	<2.1	5.0	10/03/14 15:17	
Lead, Dissolved	ug/L	<3.0	7.5	10/03/14 15:17	
Selenium, Dissolved	ug/L	<6.7	20.0	10/03/14 15:17	
Silver, Dissolved	ug/L	<2.7	10.0	10/03/14 15:17	

LABORATORY CONTROL SAMPLE: 1057492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	467	93	80-120	
Barium, Dissolved	ug/L	500	481	96	80-120	
Cadmium, Dissolved	ug/L	500	484	97	80-120	
Chromium, Dissolved	ug/L	500	481	96	80-120	
Lead, Dissolved	ug/L	500	486	97	80-120	
Selenium, Dissolved	ug/L	500	466	93	80-120	
Silver, Dissolved	ug/L	250	233	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1057493 1057494

Parameter	Units	40103942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	484	488	97	98	75-125	1	20	
Barium, Dissolved	ug/L	123	500	500	602	602	96	96	75-125	0	20	
Cadmium, Dissolved	ug/L	<0.60	500	500	494	494	99	99	75-125	0	20	
Chromium, Dissolved	ug/L	<2.1	500	500	475	474	95	95	75-125	0	20	
Lead, Dissolved	ug/L	3.4J	500	500	476	479	94	95	75-125	1	20	
Selenium, Dissolved	ug/L	<6.7	500	500	490	490	97	98	75-125	0	20	
Silver, Dissolved	ug/L	<2.7	250	250	226	226	91	91	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch:	MERP/4501	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury Dissolved
Associated Lab Samples:	40103942006		

METHOD BLANK: 1052253 Matrix: Water
Associated Lab Samples: 40103942006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	09/29/14 11:02	

LABORATORY CONTROL SAMPLE: 1052254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.4	109	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052255 1052256

Parameter	Units	40103920001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	5.4	5.4	108	108	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch:	MERP/4516	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury Dissolved
Associated Lab Samples:	40103982007, 40103982008, 40103982009		

METHOD BLANK: 1058920 Matrix: Water

Associated Lab Samples: 40103982007, 40103982008, 40103982009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	10/07/14 11:18	

LABORATORY CONTROL SAMPLE: 1058921

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.6	92	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1058922 1058923

Parameter	Units	40104266001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	4.7	4.6	94	92	85-115	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch:	MERP/4508	Analysis Method:	EPA 7471
QC Batch Method:	EPA 7471	Analysis Description:	7471 Mercury
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

METHOD BLANK:	1055074	Matrix:	Solid
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	10/02/14 11:21	

LABORATORY CONTROL SAMPLE:	1055075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.16	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	1055076	1055077

Parameter	Units	40103982004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.0050J	.17	.17	0.17	0.17	99	99	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch: MPRP/10859 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006

METHOD BLANK: 1051994 Matrix: Solid
Associated Lab Samples: 40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.64	2.0	09/26/14 15:54	
Barium	mg/kg	<0.12	0.50	09/26/14 15:54	
Cadmium	mg/kg	<0.066	0.50	09/26/14 15:54	
Chromium	mg/kg	<0.19	0.50	09/26/14 15:54	
Lead	mg/kg	<0.43	1.0	09/26/14 15:54	
Selenium	mg/kg	<0.77	2.0	09/26/14 15:54	
Silver	mg/kg	<0.28	1.0	09/26/14 15:54	

LABORATORY CONTROL SAMPLE: 1051995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.2	94	80-120	
Barium	mg/kg	50	49.3	99	80-120	
Cadmium	mg/kg	50	47.5	95	80-120	
Chromium	mg/kg	50	49.0	98	80-120	
Lead	mg/kg	50	48.4	97	80-120	
Selenium	mg/kg	50	46.8	94	80-120	
Silver	mg/kg	25	23.5	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1051996 1051997

Parameter	Units	40103985001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	2.9	50	49.8	47.6	48.5	89	92	75-125	2	20	
Barium	mg/kg	56.0	50	49.8	106	106	101	100	75-125	0	20	
Cadmium	mg/kg	<0.066	50	49.8	46.5	46.5	93	93	75-125	0	20	
Chromium	mg/kg	18.1	50	49.8	64.4	65.2	93	95	75-125	1	20	
Lead	mg/kg	4.4	50	49.8	48.2	48.4	88	88	75-125	0	20	
Selenium	mg/kg	<0.77	50	49.8	43.9	44.1	88	88	75-125	0	20	
Silver	mg/kg	<0.28	25	24.9	23.2	23.3	93	93	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch:	MPRP/10880	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
Associated Lab Samples:	40103982008		

METHOD BLANK: 1054902 Matrix: Water
Associated Lab Samples: 40103982008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<6.8	20.0	10/01/14 18:36	
Barium, Dissolved	ug/L	<1.7	5.0	10/01/14 18:36	
Cadmium, Dissolved	ug/L	<1.0	5.0	10/01/14 18:36	
Chromium, Dissolved	ug/L	<1.5	5.0	10/01/14 18:36	
Lead, Dissolved	ug/L	<1.6	7.5	10/01/14 18:36	
Selenium, Dissolved	ug/L	<6.8	20.0	10/01/14 18:36	
Silver, Dissolved	ug/L	<3.2	10.0	10/01/14 18:36	

LABORATORY CONTROL SAMPLE: 1054903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	519	104	80-120	
Barium, Dissolved	ug/L	500	472	94	80-120	
Cadmium, Dissolved	ug/L	500	489	98	80-120	
Chromium, Dissolved	ug/L	500	538	108	80-120	
Lead, Dissolved	ug/L	500	522	104	80-120	
Selenium, Dissolved	ug/L	500	504	101	80-120	
Silver, Dissolved	ug/L	250	254	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1054904 1054905

Parameter	Units	40103788005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	7.7J	500	500	522	521	103	103	75-125	0	20	
Barium, Dissolved	ug/L	101	500	500	578	573	95	94	75-125	1	20	
Cadmium, Dissolved	ug/L	<1.0	500	500	494	493	99	99	75-125	0	20	
Chromium, Dissolved	ug/L	5.9	500	500	542	537	107	106	75-125	1	20	
Lead, Dissolved	ug/L	4.8J	500	500	521	519	103	103	75-125	0	20	
Selenium, Dissolved	ug/L	<6.8	500	500	507	510	101	101	75-125	1	20	
Silver, Dissolved	ug/L	<3.2	250	250	255	254	102	101	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch:	MSV/25898	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

METHOD BLANK:	1051818	Matrix:	Solid
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:23	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:23	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:23	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:23	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:23	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:23	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:23	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:23	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:23	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:23	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:23	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:23	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:23	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:23	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:23	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:23	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:23	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:23	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:23	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:23	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:23	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:23	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:23	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:23	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:23	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:23	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:23	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:23	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:23	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:23	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:23	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:23	
Chloroform	ug/kg	<46.4	250	09/25/14 09:23	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:23	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:23	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:23	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:23	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:23	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:23	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:23	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:23	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

METHOD BLANK: 1051818

Matrix: Solid

Associated Lab Samples: 40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:23	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:23	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:23	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:23	
Methylene Chloride	ug/kg	16.7J	50.0	09/25/14 09:23	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:23	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:23	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:23	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:23	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:23	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:23	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:23	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:23	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:23	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:23	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:23	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:23	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:23	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:23	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:23	
4-Bromofluorobenzene (S)	%	108	39-139	09/25/14 09:23	
Dibromofluoromethane (S)	%	114	37-152	09/25/14 09:23	
Toluene-d8 (S)	%	107	38-154	09/25/14 09:23	

LABORATORY CONTROL SAMPLE & LCSD: 1051819

1051820

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2690	2720	108	109	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2380	2480	95	99	70-130	4	20	
1,1,2-Trichloroethane	ug/kg	2500	2410	2410	97	96	70-130	0	20	
1,1-Dichloroethane	ug/kg	2500	2390	2440	96	97	70-130	2	20	
1,1-Dichloroethene	ug/kg	2500	2420	2470	97	99	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2380	2460	95	99	70-130	3	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2300	2290	92	92	50-150	0	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2650	2640	106	105	70-130	0	20	
1,2-Dichlorobenzene	ug/kg	2500	2440	2490	98	100	70-130	2	20	
1,2-Dichloroethane	ug/kg	2500	3010	3070	120	123	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2730	2750	109	110	70-130	1	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2530	98	101	70-130	4	20	
1,4-Dichlorobenzene	ug/kg	2500	2390	2460	96	98	70-130	3	20	
Benzene	ug/kg	2500	2620	2630	105	105	70-130	1	20	
Bromodichloromethane	ug/kg	2500	2470	2490	99	100	70-130	1	20	
Bromoform	ug/kg	2500	2110	2170	84	87	70-130	3	20	
Bromomethane	ug/kg	2500	1490	1700	60	68	34-173	13	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

LABORATORY CONTROL SAMPLE & LCSD: 1051819			1051820							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2610	2670	105	107	70-130	2	20	
Chlorobenzene	ug/kg	2500	2510	2560	100	102	70-130	2	20	
Chloroethane	ug/kg	2500	1980	2010	79	80	44-173	1	20	
Chloroform	ug/kg	2500	2740	2770	109	111	70-130	1	20	
Chloromethane	ug/kg	2500	2340	2290	93	92	43-130	2	20	
cis-1,2-Dichloroethene	ug/kg	2500	2280	2440	91	98	70-130	7	20	
cis-1,3-Dichloropropene	ug/kg	2500	2360	2390	95	96	70-130	1	20	
Dibromochloromethane	ug/kg	2500	2300	2330	92	93	70-130	1	20	
Dichlorodifluoromethane	ug/kg	2500	1570	1530	63	61	10-150	3	20	
Ethylbenzene	ug/kg	2500	2620	2620	105	105	70-130	0	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2710	2700	108	108	70-130	0	20	
m&p-Xylene	ug/kg	5000	5160	5180	103	104	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	2500	2380	2430	95	97	65-131	2	20	
Methylene Chloride	ug/kg	2500	2430	2580	97	103	64-143	6	20	
o-Xylene	ug/kg	2500	2540	2570	101	103	70-130	1	20	
Styrene	ug/kg	2500	2650	2630	106	105	70-130	1	20	
Tetrachloroethene	ug/kg	2500	2350	2350	94	94	70-130	0	20	
Toluene	ug/kg	2500	2520	2560	101	102	70-130	2	20	
trans-1,2-Dichloroethene	ug/kg	2500	2470	2510	99	100	70-130	1	20	
trans-1,3-Dichloropropene	ug/kg	2500	2310	2390	92	96	70-130	3	20	
Trichloroethene	ug/kg	2500	2710	2740	108	110	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2120	2150	85	86	50-150	1	20	
Vinyl chloride	ug/kg	2500	2330	2290	93	92	57-130	1	20	
4-Bromofluorobenzene (S)	%				113	110	39-139			
Dibromofluoromethane (S)	%				122	119	37-152			
Toluene-d8 (S)	%				110	109	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch: MSV/25890

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 40103942006, 40103942008

METHOD BLANK: 1051271

Matrix: Water

Associated Lab Samples: 40103942006, 40103942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 14:00	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 14:00	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 14:00	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 14:00	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 14:00	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 14:00	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 14:00	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 14:00	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 14:00	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 14:00	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 14:00	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 14:00	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 14:00	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 14:00	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 14:00	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 14:00	
Benzene	ug/L	<0.50	1.0	09/29/14 14:00	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 14:00	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 14:00	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Bromoform	ug/L	<0.50	1.0	09/29/14 14:00	
Bromomethane	ug/L	<2.4	5.0	09/29/14 14:00	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 14:00	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Chloroethane	ug/L	<0.37	1.0	09/29/14 14:00	
Chloroform	ug/L	<2.5	5.0	09/29/14 14:00	
Chloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 14:00	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 14:00	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 14:00	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

METHOD BLANK: 1051271

Matrix: Water

Associated Lab Samples: 40103942006, 40103942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 14:00	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 14:00	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 14:00	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 14:00	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 14:00	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Naphthalene	ug/L	<2.5	5.0	09/29/14 14:00	
o-Xylene	ug/L	<0.50	1.0	09/29/14 14:00	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 14:00	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 14:00	
Styrene	ug/L	<0.50	1.0	09/29/14 14:00	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 14:00	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 14:00	
Toluene	ug/L	<0.50	1.0	09/29/14 14:00	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 14:00	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 14:00	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 14:00	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 14:00	
4-Bromofluorobenzene (S)	%	92	59-130	09/29/14 14:00	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 14:00	
Toluene-d8 (S)	%	95	70-130	09/29/14 14:00	

LABORATORY CONTROL SAMPLE & LCSD: 1051272

1051273

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.8	56.3	118	113	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	50	45.4	44.8	91	90	70-130	1	20	
1,1,2-Trichloroethane	ug/L	50	53.8	53.8	108	108	70-130	0	20	
1,1-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,1-Dichloroethene	ug/L	50	60.2	58.0	120	116	70-132	4	20	
1,2,4-Trichlorobenzene	ug/L	50	53.6	52.2	107	104	70-130	3	20	
1,2-Dibromo-3-chloropropane	ug/L	50	40.9	40.4	82	81	50-150	1	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	52.4	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.0	51.0	104	102	70-130	2	20	
1,2-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,2-Dichloropropane	ug/L	50	59.8	57.8	120	116	70-130	3	20	
1,3-Dichlorobenzene	ug/L	50	51.6	50.4	103	101	70-130	2	20	
1,4-Dichlorobenzene	ug/L	50	51.5	50.3	103	101	70-130	2	20	
Benzene	ug/L	50	55.3	53.1	111	106	70-130	4	20	
Bromodichloromethane	ug/L	50	60.4	58.8	121	118	70-130	3	20	
Bromoform	ug/L	50	56.6	54.7	113	109	70-130	3	20	
Bromomethane	ug/L	50	50.3	56.0	101	112	34-157	11	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

LABORATORY CONTROL SAMPLE & LCSD: 1051272			1051273							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	58.4	56.5	117	113	70-132	3	20	
Chlorobenzene	ug/L	50	53.4	52.2	107	104	70-130	2	20	
Chloroethane	ug/L	50	51.6	50.4	103	101	60-143	2	20	
Chloroform	ug/L	50	53.5	51.5	107	103	70-130	4	20	
Chloromethane	ug/L	50	56.8	55.7	114	111	43-148	2	20	
cis-1,2-Dichloroethene	ug/L	50	54.3	52.8	109	106	51-133	3	20	
cis-1,3-Dichloropropene	ug/L	50	53.0	51.5	106	103	70-130	3	20	
Dibromochloromethane	ug/L	50	58.9	57.0	118	114	70-130	3	20	
Dichlorodifluoromethane	ug/L	50	73.6	71.6	147	143	10-174	3	20	
Ethylbenzene	ug/L	50	56.8	55.3	114	111	70-130	3	20	
Isopropylbenzene (Cumene)	ug/L	50	53.0	51.5	106	103	70-136	3	20	
m&p-Xylene	ug/L	100	113	109	113	109	70-131	3	20	
Methyl-tert-butyl ether	ug/L	50	50.7	49.4	101	99	54-139	3	20	
Methylene Chloride	ug/L	50	53.5	51.8	107	104	70-130	3	20	
o-Xylene	ug/L	50	56.6	55.1	113	110	70-130	3	20	
Styrene	ug/L	50	51.7	49.8	103	100	70-130	4	20	
Tetrachloroethene	ug/L	50	63.9	63.1	128	126	70-130	1	20	
Toluene	ug/L	50	54.4	52.4	109	105	70-130	4	20	
trans-1,2-Dichloroethene	ug/L	50	56.6	54.7	113	109	70-130	4	20	
trans-1,3-Dichloropropene	ug/L	50	48.8	48.1	98	96	70-130	2	20	
Trichloroethene	ug/L	50	60.6	58.6	121	117	70-130	3	20	
Trichlorofluoromethane	ug/L	50	63.8	61.3	128	123	50-150	4	20	
Vinyl chloride	ug/L	50	60.9	58.6	122	117	59-157	4	20	
4-Bromofluorobenzene (S)	%				101	102	59-130			
Dibromofluoromethane (S)	%				93	93	70-130			
Toluene-d8 (S)	%				94	94	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711			1053712									
Parameter	Units	40104015002	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,1,1-Trichloroethane	ug/L	<0.50	50	50	56.5	55.8	113	112	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	45.1	45.3	90	91	70-130	0	20	
1,1,2-Trichloroethane	ug/L	<0.16	50	50	54.4	53.8	109	108	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	50.1	50.1	100	100	70-130	0	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	57.6	58.1	115	116	70-138	1	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	53.4	53.8	107	108	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	41.9	42.6	84	85	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	50	53.0	52.5	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.7	51.3	101	103	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	50.3	50.5	101	101	70-130	1	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	58.1	57.9	116	116	70-130	0	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.0	50.0	100	100	70-130	0	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	50.6	50.7	101	101	70-130	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711				1053712									
Parameter	Units	40104015002	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max	Qual
		Result	Spike	Spike									
Benzene	ug/L	<0.50	50	50	52.7	52.6	105	105	70-130	0	20		
Bromodichloromethane	ug/L	<0.50	50	50	59.0	58.6	118	117	70-130	1	20		
Bromoform	ug/L	<0.50	50	50	55.7	55.7	111	111	70-130	0	20		
Bromomethane	ug/L	<2.4	50	50	58.8	59.6	118	119	34-159	1	20		
Carbon tetrachloride	ug/L	<0.50	50	50	56.4	56.2	113	112	70-132	0	20		
Chlorobenzene	ug/L	<0.50	50	50	52.7	51.8	105	104	70-130	2	20		
Chloroethane	ug/L	<0.37	50	50	49.3	49.2	99	98	60-143	0	20		
Chloroform	ug/L	<2.5	50	50	51.6	50.9	103	102	70-130	1	20		
Chloromethane	ug/L	<0.50	50	50	54.2	53.9	108	108	43-149	1	20		
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	52.5	51.9	105	104	48-137	1	33		
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	52.6	52.7	105	105	70-130	0	20		
Dibromochloromethane	ug/L	<0.50	50	50	58.3	57.2	117	114	70-130	2	20		
Dichlorodifluoromethane	ug/L	<0.20	50	50	68.7	65.7	137	131	10-174	4	20		
Ethylbenzene	ug/L	<0.50	50	50	55.6	55.1	111	110	70-130	1	20		
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	52.0	51.7	104	103	70-136	1	20		
m&p-Xylene	ug/L	<1.0	100	100	111	109	111	109	70-135	1	20		
Methyl-tert-butyl ether	ug/L	<0.17	50	50	49.8	50.3	100	101	54-139	1	20		
Methylene Chloride	ug/L	<0.23	50	50	51.5	51.7	103	103	70-133	0	20		
o-Xylene	ug/L	<0.50	50	50	55.9	55.3	112	111	70-130	1	20		
Styrene	ug/L	<0.50	50	50	50.4	48.8	101	98	70-130	3	20		
Tetrachloroethene	ug/L	<0.50	50	50	64.7	63.1	129	126	70-130	3	20		
Toluene	ug/L	<0.50	50	50	53.2	52.9	106	106	70-130	1	20		
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.9	53.8	110	108	70-130	2	20		
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	49.6	48.8	99	98	70-130	2	20		
Trichloroethene	ug/L	2.3	50	50	61.1	60.2	118	116	70-130	2	20		
Trichlorofluoromethane	ug/L	<0.17	50	50	61.0	60.1	122	120	50-150	1	20		
Vinyl chloride	ug/L	<0.18	50	50	57.1	57.1	114	114	59-158	0	20		
4-Bromofluorobenzene (S)	%						102	101	59-130				
Dibromofluoromethane (S)	%						91	92	70-130				
Toluene-d8 (S)	%						94	93	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch: MSV/25920 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40103982007, 40103982008, 40103982009

METHOD BLANK: 1053422 Matrix: Water
Associated Lab Samples: 40103982007, 40103982008, 40103982009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 08:10	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 08:10	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 08:10	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 08:10	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 08:10	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 08:10	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 08:10	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 08:10	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 08:10	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 08:10	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 08:10	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 08:10	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 08:10	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 08:10	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 08:10	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 08:10	
Benzene	ug/L	<0.50	1.0	09/29/14 08:10	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 08:10	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 08:10	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Bromoform	ug/L	<0.50	1.0	09/29/14 08:10	
Bromomethane	ug/L	<2.4	5.0	09/29/14 08:10	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 08:10	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Chloroethane	ug/L	<0.37	1.0	09/29/14 08:10	
Chloroform	ug/L	<2.5	5.0	09/29/14 08:10	
Chloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 08:10	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 08:10	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 08:10	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

METHOD BLANK: 1053422 Matrix: Water
Associated Lab Samples: 40103982007, 40103982008, 40103982009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 08:10	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 08:10	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 08:10	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 08:10	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 08:10	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Naphthalene	ug/L	<2.5	5.0	09/29/14 08:10	
o-Xylene	ug/L	<0.50	1.0	09/29/14 08:10	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 08:10	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 08:10	
Styrene	ug/L	<0.50	1.0	09/29/14 08:10	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 08:10	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 08:10	
Toluene	ug/L	<0.50	1.0	09/29/14 08:10	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 08:10	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 08:10	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 08:10	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 08:10	
4-Bromofluorobenzene (S)	%	91	59-130	09/29/14 08:10	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 08:10	
Toluene-d8 (S)	%	96	70-130	09/29/14 08:10	

LABORATORY CONTROL SAMPLE & LCSD: 1053423

		1053424								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.7	49.2	97	98	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	50	49.4	51.1	99	102	70-130	3	20	
1,1,2-Trichloroethane	ug/L	50	51.8	54.5	104	109	70-130	5	20	
1,1-Dichloroethane	ug/L	50	57.9	58.1	116	116	70-130	0	20	
1,1-Dichloroethene	ug/L	50	62.7	62.7	125	125	70-132	0	20	
1,2,4-Trichlorobenzene	ug/L	50	52.2	56.1	104	112	70-130	7	20	
1,2-Dibromo-3-chloropropane	ug/L	50	41.0	44.4	82	89	50-150	8	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.6	54.1	107	108	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.9	53.9	106	108	70-130	2	20	
1,2-Dichloroethane	ug/L	50	54.2	54.6	108	109	70-130	1	20	
1,2-Dichloropropane	ug/L	50	56.6	58.0	113	116	70-130	2	20	
1,3-Dichlorobenzene	ug/L	50	52.3	52.8	105	106	70-130	1	20	
1,4-Dichlorobenzene	ug/L	50	50.5	51.6	101	103	70-130	2	20	
Benzene	ug/L	50	59.3	59.4	119	119	70-130	0	20	
Bromodichloromethane	ug/L	50	53.0	54.0	106	108	70-130	2	20	
Bromoform	ug/L	50	42.2	42.8	84	86	70-130	1	20	
Bromomethane	ug/L	50	42.5	47.9	85	96	34-157	12	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

LABORATORY CONTROL SAMPLE & LCSD:		1053423	1053424							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	50.4	52.2	101	104	70-132	3	20	
Chlorobenzene	ug/L	50	54.2	55.5	108	111	70-130	2	20	
Chloroethane	ug/L	50	66.7	64.1	133	128	60-143	4	20	
Chloroform	ug/L	50	47.0	45.9	94	92	70-130	2	20	
Chloromethane	ug/L	50	72.8	72.5	146	145	43-148	0	20	
cis-1,2-Dichloroethene	ug/L	50	55.7	54.7	111	109	51-133	2	20	
cis-1,3-Dichloropropene	ug/L	50	52.1	52.7	104	105	70-130	1	20	
Dibromochloromethane	ug/L	50	50.0	53.1	100	106	70-130	6	20	
Dichlorodifluoromethane	ug/L	50	77.6	76.2	155	152	10-174	2	20	
Ethylbenzene	ug/L	50	58.2	59.3	116	119	70-130	2	20	
Isopropylbenzene (Cumene)	ug/L	50	58.3	59.1	117	118	70-136	1	20	
m&p-Xylene	ug/L	100	115	115	115	115	70-131	0	20	
Methyl-tert-butyl ether	ug/L	50	52.9	52.9	106	106	54-139	0	20	
Methylene Chloride	ug/L	50	58.7	58.0	117	116	70-130	1	20	
o-Xylene	ug/L	50	57.3	57.8	115	116	70-130	1	20	
Styrene	ug/L	50	52.8	52.7	106	105	70-130	0	20	
Tetrachloroethene	ug/L	50	55.5	56.6	111	113	70-130	2	20	
Toluene	ug/L	50	55.8	56.1	112	112	70-130	0	20	
trans-1,2-Dichloroethene	ug/L	50	60.1	59.9	120	120	70-130	0	20	
trans-1,3-Dichloropropene	ug/L	50	43.2	45.7	86	91	70-130	5	20	
Trichloroethene	ug/L	50	58.4	58.9	117	118	70-130	1	20	
Trichlorofluoromethane	ug/L	50	62.6	62.3	125	125	50-150	1	20	
Vinyl chloride	ug/L	50	70.3	71.4	141	143	59-157	2	20	
4-Bromofluorobenzene (S)	%				102	104	59-130			
Dibromofluoromethane (S)	%				94	93	70-130			
Toluene-d8 (S)	%				96	97	70-130			

MATRIX SPIKE SAMPLE:	1053739	40104103012	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	50	40.8	82	70-130	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	60.5	121	70-130	
1,1,2-Trichloroethane	ug/L	<0.16	50	57.6	115	70-130	
1,1-Dichloroethane	ug/L	<0.24	50	54.5	109	70-130	
1,1-Dichloroethene	ug/L	<0.41	50	57.7	115	70-138	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	47.8	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	47.0	94	50-150	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	56.3	113	70-130	
1,2-Dichlorobenzene	ug/L	<0.50	50	51.3	103	70-130	
1,2-Dichloroethane	ug/L	<0.17	50	54.0	108	70-130	
1,2-Dichloropropane	ug/L	<0.23	50	54.6	109	70-130	
1,3-Dichlorobenzene	ug/L	<0.50	50	49.4	99	70-130	
1,4-Dichlorobenzene	ug/L	<0.50	50	48.4	97	70-130	
Benzene	ug/L	<0.50	50	56.5	113	70-130	
Bromodichloromethane	ug/L	<0.50	50	51.4	103	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

MATRIX SPIKE SAMPLE:		1053739					
Parameter	Units	40104103012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	<0.50	50	44.3	89	70-130	
Bromomethane	ug/L	<2.4	50	15.9	32	34-159	M1
Carbon tetrachloride	ug/L	<0.50	50	41.6	83	70-132	
Chlorobenzene	ug/L	<0.50	50	53.5	107	70-130	
Chloroethane	ug/L	<0.37	50	59.8	120	60-143	
Chloroform	ug/L	<2.5	50	43.2	86	70-130	
Chloromethane	ug/L	<0.50	50	56.7	113	43-149	
cis-1,2-Dichloroethene	ug/L	<0.26	50	42.5	85	48-137	
cis-1,3-Dichloropropene	ug/L	<0.50	50	41.8	84	70-130	
Dibromochloromethane	ug/L	<0.50	50	51.3	103	70-130	
Dichlorodifluoromethane	ug/L	<0.20	50	66.9	134	10-174	
Ethylbenzene	ug/L	<0.50	50	56.0	112	70-130	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	54.7	109	70-136	
m&p-Xylene	ug/L	<1.0	100	109	109	70-135	
Methyl-tert-butyl ether	ug/L	<0.17	50	46.8	94	54-139	
Methylene Chloride	ug/L	<0.23	50	53.4	107	70-133	
o-Xylene	ug/L	<0.50	50	55.1	110	70-130	
Styrene	ug/L	<0.50	50	50.7	101	70-130	
Tetrachloroethene	ug/L	<0.50	50	53.5	107	70-130	
Toluene	ug/L	<0.50	50	54.9	110	70-130	
trans-1,2-Dichloroethene	ug/L	<0.26	50	55.9	112	70-130	
trans-1,3-Dichloropropene	ug/L	<0.23	50	32.6	65	70-130	M1
Trichloroethene	ug/L	<0.33	50	57.1	114	70-130	
Trichlorofluoromethane	ug/L	<0.17	50	56.7	113	50-150	
Vinyl chloride	ug/L	<0.18	50	57.3	115	59-158	
4-Bromofluorobenzene (S)	%				101	59-130	HS
Dibromofluoromethane (S)	%				86	70-130	
Toluene-d8 (S)	%				96	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103982

QC Batch: OEXT/24400 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006

METHOD BLANK: 1052012 Matrix: Solid
Associated Lab Samples: 40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
2-Methylnaphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
Acenaphthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Acenaphthylene	ug/kg	<7.5	16.7	09/26/14 11:33	
Anthracene	ug/kg	<8.6	16.7	09/26/14 11:33	
Benzo(a)anthracene	ug/kg	<5.8	16.7	09/26/14 11:33	
Benzo(a)pyrene	ug/kg	<6.0	16.7	09/26/14 11:33	
Benzo(b)fluoranthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Benzo(g,h,i)perylene	ug/kg	<6.3	16.7	09/26/14 11:33	
Benzo(k)fluoranthene	ug/kg	<9.2	16.7	09/26/14 11:33	
Chrysene	ug/kg	<7.7	16.7	09/26/14 11:33	
Dibenz(a,h)anthracene	ug/kg	<6.1	16.7	09/26/14 11:33	
Fluoranthene	ug/kg	<8.3	16.7	09/26/14 11:33	
Fluorene	ug/kg	<8.3	16.7	09/26/14 11:33	
Indeno(1,2,3-cd)pyrene	ug/kg	<6.3	16.7	09/26/14 11:33	
Naphthalene	ug/kg	<8.3	16.7	09/26/14 11:33	
Phenanthrene	ug/kg	<8.3	16.7	09/26/14 11:33	
Pyrene	ug/kg	<8.3	16.7	09/26/14 11:33	
2-Fluorobiphenyl (S)	%	65	40-130	09/26/14 11:33	
Terphenyl-d14 (S)	%	74	40-130	09/26/14 11:33	

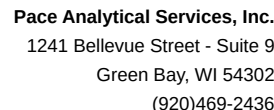
LABORATORY CONTROL SAMPLE: 1052013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	254	76	47-130	
2-Methylnaphthalene	ug/kg	333	250	75	48-130	
Acenaphthene	ug/kg	333	258	77	55-130	
Acenaphthylene	ug/kg	333	256	77	55-130	
Anthracene	ug/kg	333	317	95	66-130	
Benzo(a)anthracene	ug/kg	333	248	74	55-130	
Benzo(a)pyrene	ug/kg	333	233	70	56-130	
Benzo(b)fluoranthene	ug/kg	333	238	71	53-130	
Benzo(g,h,i)perylene	ug/kg	333	261	78	51-130	
Benzo(k)fluoranthene	ug/kg	333	280	84	52-130	
Chrysene	ug/kg	333	337	101	58-130	
Dibenz(a,h)anthracene	ug/kg	333	252	76	55-130	
Fluoranthene	ug/kg	333	283	85	62-130	
Fluorene	ug/kg	333	276	83	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	256	77	54-130	
Naphthalene	ug/kg	333	250	75	41-130	

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

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



Project: 223432 WINNECONNE
Pace Project No.: 40103982

LABORATORY CONTROL SAMPLE: 1052013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	242	73	60-130	
Pyrene	ug/kg	333	271	81	51-130	
2-Fluorobiphenyl (S)	%			71	40-130	
Terphenyl-d14 (S)	%			80	40-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052014 1052015

Parameter	Units	40103850014	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Spike Conc.	Spike Conc.							
1-Methylnaphthalene	ug/kg	<9.8	392	392	271	291	69	74	42-130	7	32
2-Methylnaphthalene	ug/kg	<9.8	392	392	260	282	66	72	34-130	8	35
Acenaphthene	ug/kg	<9.8	392	392	266	288	68	73	31-130	8	35
Acenaphthylene	ug/kg	<8.8	392	392	264	286	67	73	32-130	8	25
Anthracene	ug/kg	<10.2	392	392	312	334	79	85	39-131	7	38
Benzo(a)anthracene	ug/kg	<6.8	392	392	242	261	62	66	29-130	8	30
Benzo(a)pyrene	ug/kg	<7.0	392	392	257	276	65	70	35-130	7	33
Benzo(b)fluoranthene	ug/kg	<9.8	392	392	237	233	60	59	21-142	2	44
Benzo(g,h,i)perylene	ug/kg	<7.5	392	392	260	275	66	70	12-134	6	33
Benzo(k)fluoranthene	ug/kg	<10.9	392	392	269	318	69	81	35-130	17	37
Chrysene	ug/kg	<9.1	392	392	320	350	82	89	37-130	9	38
Dibenz(a,h)anthracene	ug/kg	<7.2	392	392	243	265	62	67	23-130	8	27
Fluoranthene	ug/kg	<9.8	392	392	272	289	69	74	29-137	6	50
Fluorene	ug/kg	<9.8	392	392	280	302	71	77	32-130	8	32
Indeno(1,2,3-cd)pyrene	ug/kg	<7.5	392	392	248	269	63	68	17-134	8	28
Naphthalene	ug/kg	<9.8	392	392	259	286	66	73	24-130	10	40
Phenanthrene	ug/kg	<9.8	392	392	239	254	61	65	27-135	6	46
Pyrene	ug/kg	<9.8	392	392	264	286	67	73	24-130	8	49
2-Fluorobiphenyl (S)	%						60	65	40-130		
Terphenyl-d14 (S)	%						64	70	40-130		

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.

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103982

QC Batch:	OEXT/24385	Analysis Method:	WI MOD DRO
QC Batch Method:	WI MOD DRO	Analysis Description:	WIDRO GCS
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

METHOD BLANK:	1051542	Matrix:	Solid
Associated Lab Samples:	40103982001, 40103982002, 40103982003, 40103982004, 40103982005, 40103982006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	<0.80	2.0	09/29/14 10:29	

LABORATORY CONTROL SAMPLE & LCSD: 1051543		1051544								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	40	34.3	29.7	86	74	70-120	14	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 223432 WINNECONNE

Pace Project No.: 40103982

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: MSV/25900

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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

T4 Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

W Non-detect results are reported on a wet weight basis.

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 223432 WINNECONNE

Pace Project No.: 40103982

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40103982001	GP-8-1 5-7.5	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982002	GP-8-1 12.5-15	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982003	GP-8-2 2.5-5	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982004	GP-8-2 7.5-10	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982005	GP-8-3 5-7.5	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982006	GP-8-3 12.5-15	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103982001	GP-8-1 5-7.5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982002	GP-8-1 12.5-15	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982003	GP-8-2 2.5-5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982004	GP-8-2 7.5-10	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982005	GP-8-3 5-7.5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982006	GP-8-3 12.5-15	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103982008	GP-8-2/TW8-2	EPA 3010	MPRP/10880	EPA 6010	ICP/9633
40103942006	TRC-8-1	EPA 6010	ICP/9643		
40103982007	GP-8-1/TW8-1	EPA 6010	ICP/9629		
40103982009	GP-8-3/TW8-3	EPA 6010	ICP/9629		
40103942006	TRC-8-1	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103982007	GP-8-1/TW8-1	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103982008	GP-8-2/TW8-2	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103982009	GP-8-3/TW8-3	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103982001	GP-8-1 5-7.5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982002	GP-8-1 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982003	GP-8-2 2.5-5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982004	GP-8-2 7.5-10	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982005	GP-8-3 5-7.5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982006	GP-8-3 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103982001	GP-8-1 5-7.5	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982002	GP-8-1 12.5-15	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982003	GP-8-2 2.5-5	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982004	GP-8-2 7.5-10	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982005	GP-8-3 5-7.5	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982006	GP-8-3 12.5-15	EPA 3546	OEXT/24400	EPA 8270 by SIM	MSSV/7261
40103982001	GP-8-1 5-7.5	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103982002	GP-8-1 12.5-15	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103982003	GP-8-2 2.5-5	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103982004	GP-8-2 7.5-10	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103982005	GP-8-3 5-7.5	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103982006	GP-8-3 12.5-15	EPA 5035/5030B	MSV/25898	EPA 8260	MSV/25900
40103942006	TRC-8-1	EPA 8260	MSV/25890		
40103942008	TRIP BLANK	EPA 8260	MSV/25890		
40103982007	GP-8-1/TW8-1	EPA 8260	MSV/25920		
40103982008	GP-8-2/TW8-2	EPA 8260	MSV/25920		
40103982009	GP-8-3/TW8-3	EPA 8260	MSV/25920		

REPORT OF LABORATORY ANALYSIS

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

**Jacki Johnson - Fwd: Winneconne
analytical samples from TRC**

40103982

From: Tod Noltemeyer
To: Hamilton, Abigail; Johnson, Jacki; WI
Sample Receiving
Date: 9/24/2014 10:47 AM
Subject: Fwd: Winneconne analytical samples
from TRC



Per below, for TRC Winneconne project coming in to GB this morning put the samples in five batches: GP5, GP8, GP9, GP11, GP12 I think are the numbers. They are not on separate COCs, but they need those different GP sample sites in different workorders.

Thanks, Tod

Project Manager
Pace Analytical - WI
(608) 232-3300

Tod.Noltemeyer@pacelabs.com

GP-8

>>> "Siewert, Dennis"
<DSiewert@trcsolutions.com> 9/24/2014 10:10 AM
>>>

Tod,

At some point, I believe that we will need to provide separate analytical data to the owners of each of the 5 sites that we investigated, including soils and groundwater results. Can we get an output from you which would include 5 separate sub reports for the 5 sites? The reason we would like to do this is to offer each site owner confidential results for their respective site.

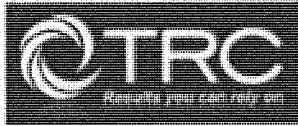
Please let me know if this is something you could help us out with.

Thanks,
Dennis

Dennis S. Siewert
Senior Designer
(Mechanical & Electrical)

708 Heartland Trail, Suite
T: 608.826.3659 | F: 608.

40103982

Follow us on [LinkedIn](#) or

This email has been scanned by the Symantec Email Security.cloud service.
 For more information please visit
<http://www.symanteccloud.com>

Sample Condition Upon Receipt

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

Pace Analytical™

Project #:

WO#: 40103982

Client Name: TRC

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Waltco

Tracking #: 640060-1/2/3



40103982

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: 20.1 /Corr:

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Person examining contents:

Date: 9/24/14

Initials: RMS

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 ☐ N/A	Date/Time: <u>9/24/14</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>ORD hold up 9/27</u> <u>RMS 9/24/14</u>
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. <u>times on VOA's different for 007, 8, 9, 12, 15, 30</u> <u>label washed off VOA 008, see comments RMS 9/24/14</u>
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒ Yes ☐ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO ₃ , H ₂ SO ₄ <2, NaOH+ZnAct ≥9, NaOH ≥12)	☒ Yes ☐ No ☐ N/A	☒ HNO ₃ ☐ H ₂ SO ₄ ☐ NaOH ☐ NaOH + ZnAct
exceptions: <u>COA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:</u>	☒ Yes ☐ No	Initial when completed: <u>RMS</u> 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): <u>327</u>		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted:

Date/Time:

Comments/ Resolution: 013 VOA and GRO ID is "6.0 11-2 12.5-15", no sample times 001-006 VOA, 010, 011, 16-25
17 28, 29, 31-36 VOA, no sample times on 40x soils except 5, 6, 13, 14 RMS 9/24/14

Project Manager Review:

Date: 9/24/14

October 08, 2014

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

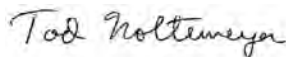
RE: Project: 223432 WINNECONNE Site 9
Pace Project No.: 40103986

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2014. 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,



Tod Noltemeyer
tod.noltemeyer@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

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

New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40103986001	GP-9-3/TW 9-3	Water	09/18/14 15:30	09/24/14 08:35
40103986002	GP-9-1 2.5-5	Solid	09/17/14 13:30	09/24/14 08:35
40103986003	GP-9-1 7.5-10	Solid	09/17/14 13:30	09/24/14 08:35
40103986004	GP-9-1/TW 9-1	Water	09/17/14 15:30	09/24/14 08:35
40103986005	GP-9-2/TW 9-2	Water	09/17/14 15:30	09/24/14 08:35
40103986006	GP-9-2 5-7.5	Solid	09/17/14 15:30	09/24/14 08:35
40103986007	GP-9-2 7.5-10	Solid	09/17/14 15:30	09/24/14 08:35
40103986008	GP-9-3 2.5-5	Solid	09/17/14 15:30	09/24/14 08:35
40103986009	GP-9-3 7.5-10	Solid	09/17/14 15:30	09/24/14 08:35
40103986010	GP-9-4 5-7.5	Solid	09/17/14 15:30	09/24/14 08:35
40103986011	GP-9-4 10-12.5	Solid	09/17/14 15:30	09/24/14 08:35
40103986012	TRIP BLANK	Water	09/17/14 00:00	09/24/14 08:35

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103986001	GP-9-3/TW 9-3	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40103986002	GP-9-1 2.5-5	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986003	GP-9-1 7.5-10	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986004	GP-9-1/TW 9-1	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40103986005	GP-9-2/TW 9-2	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40103986006	GP-9-2 5-7.5	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986007	GP-9-2 7.5-10	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986008	GP-9-3 2.5-5	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986009	GP-9-3 7.5-10	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986010	GP-9-4 5-7.5	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986011	GP-9-4 10-12.5	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103986012	TRIP BLANK	EPA 8260	LAP	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103986001	GP-9-3/TW 9-3					
EPA 6010	Barium, Dissolved	118	ug/L	5.0	10/01/14 13:19	
EPA 8260	cis-1,2-Dichloroethene	9.1	ug/L	1.0	09/29/14 14:09	
EPA 8260	trans-1,2-Dichloroethene	0.32J	ug/L	1.0	09/29/14 14:09	
EPA 8260	Trichloroethene	53.5	ug/L	1.0	09/29/14 14:09	
EPA 8260	Vinyl chloride	8.7	ug/L	1.0	09/29/14 14:09	
40103986004	GP-9-1/TW 9-1					
EPA 6010	Arsenic, Dissolved	9.0J	ug/L	20.0	10/01/14 19:00	
EPA 6010	Barium, Dissolved	287	ug/L	5.0	10/01/14 19:00	
EPA 6010	Cadmium, Dissolved	1.8J	ug/L	5.0	10/01/14 19:00	
EPA 6010	Chromium, Dissolved	39.0	ug/L	5.0	10/01/14 19:00	
EPA 6010	Lead, Dissolved	198	ug/L	7.5	10/01/14 19:00	
EPA 7470	Mercury, Dissolved	0.25	ug/L	0.20	10/07/14 12:08	
EPA 8260	cis-1,2-Dichloroethene	0.33J	ug/L	1.0	09/29/14 13:24	
EPA 8260	Vinyl chloride	17.1	ug/L	1.0	09/29/14 13:24	
40103986005	GP-9-2/TW 9-2					
EPA 6010	Arsenic, Dissolved	11.7J	ug/L	20.0	10/01/14 13:22	
EPA 6010	Barium, Dissolved	266	ug/L	5.0	10/01/14 13:22	
EPA 6010	Lead, Dissolved	5.5J	ug/L	7.5	10/01/14 13:22	
EPA 8260	Methyl-tert-butyl ether	0.42J	ug/L	1.0	09/29/14 13:47	
40103986006	GP-9-2 5-7.5					
EPA 8260	m&p-Xylene	59.5J	ug/kg	120	09/25/14 13:52	
40103986008	GP-9-3 2.5-5					
EPA 8260	Trichloroethene	86.5	ug/kg	60.0	09/25/14 14:35	
40103986009	GP-9-3 7.5-10					
EPA 8260	Trichloroethene	579	ug/kg	60.0	09/25/14 14:57	
40103986011	GP-9-4 10-12.5					
EPA 8260	Trichloroethene	49.7J	ug/kg	60.0	09/25/14 15:40	

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: WI MOD GRO

Description: WIGRO GCV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

8 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with TPH GRO/PVOC WI ext. with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

General Information:

8 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25893

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1051770)
- Chloroethane

Matrix Spikes:

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

QC Batch: MSV/25893

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Method: EPA 8260

Description: 8260 MSV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

QC Batch: MSV/25920

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40104103012

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

- MS (Lab ID: 1053739)
 - Bromomethane
 - trans-1,3-Dichloropropene

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3/TW 9-3 **Lab ID: 40103986001** Collected: 09/18/14 15:30 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/01/14 13:19	7440-38-2	
Barium, Dissolved	118	ug/L	5.0	1.4	1		10/01/14 13:19	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/01/14 13:19	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/01/14 13:19	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/01/14 13:19	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/01/14 13:19	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/01/14 13:19	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 12:05	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 14:09	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 14:09	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 14:09	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 14:09	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 14:09	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 14:09	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 14:09	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 14:09	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 14:09	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 14:09	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 14:09	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 14:09	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 14:09	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 14:09	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 14:09	75-35-4	
cis-1,2-Dichloroethene	9.1	ug/L	1.0	0.26	1		09/29/14 14:09	156-59-2	
trans-1,2-Dichloroethene	0.32J	ug/L	1.0	0.26	1		09/29/14 14:09	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 14:09	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 14:09	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 14:09	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3/TW 9-3 **Lab ID:** 40103986001 **Collected:** 09/18/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 14:09	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 14:09	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 14:09	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 14:09	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 14:09	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 14:09	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 14:09	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 14:09	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 14:09	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 14:09	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 14:09	79-00-5	
Trichloroethene	53.5	ug/L	1.0	0.33	1		09/29/14 14:09	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 14:09	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	108-67-8	
Vinyl chloride	8.7	ug/L	1.0	0.18	1		09/29/14 14:09	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 14:09	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 14:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	59-130		1		09/29/14 14:09	460-00-4	
Dibromofluoromethane (S)	95	%	70-130		1		09/29/14 14:09	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		09/29/14 14:09	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1 2.5-5 **Lab ID:** 40103986002 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 12:11		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 13:10	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 13:10	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 13:10	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 13:10	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 13:10	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1 2.5-5 **Lab ID:** 40103986002 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 13:10	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 13:10	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:10	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	87	%	37-152		1	09/25/14 09:20	09/25/14 13:10	1868-53-7	
Toluene-d8 (S)	100	%	38-154		1	09/25/14 09:20	09/25/14 13:10	2037-26-5	
4-Bromofluorobenzene (S)	90	%	39-139		1	09/25/14 09:20	09/25/14 13:10	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1 7.5-10 **Lab ID: 40103986003** Collected: 09/17/14 13:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 12:37		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 13:31	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 13:31	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 13:31	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 13:31	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 13:31	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1 7.5-10 **Lab ID:** 40103986003 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 13:31	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 13:31	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:31	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	87	%	37-152		1	09/25/14 09:20	09/25/14 13:31	1868-53-7	
Toluene-d8 (S)	100	%	38-154		1	09/25/14 09:20	09/25/14 13:31	2037-26-5	
4-Bromofluorobenzene (S)	92	%	39-139		1	09/25/14 09:20	09/25/14 13:31	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1/TW 9-1 **Lab ID:** 40103986004 Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic, Dissolved	9.0J	ug/L	20.0	6.8	1	10/01/14 09:40	10/01/14 19:00	7440-38-2	
Barium, Dissolved	287	ug/L	5.0	1.7	1	10/01/14 09:40	10/01/14 19:00	7440-39-3	
Cadmium, Dissolved	1.8J	ug/L	5.0	1.0	1	10/01/14 09:40	10/01/14 19:00	7440-43-9	
Chromium, Dissolved	39.0	ug/L	5.0	1.5	1	10/01/14 09:40	10/01/14 19:00	7440-47-3	
Lead, Dissolved	198	ug/L	7.5	1.6	1	10/01/14 09:40	10/01/14 19:00	7439-92-1	
Selenium, Dissolved	<6.8	ug/L	20.0	6.8	1	10/01/14 09:40	10/01/14 19:00	7782-49-2	
Silver, Dissolved	<3.2	ug/L	10.0	3.2	1	10/01/14 09:40	10/01/14 19:00	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	0.25	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 12:08	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:24	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 13:24	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 13:24	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:24	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 13:24	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 13:24	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 13:24	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 13:24	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 13:24	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 13:24	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 13:24	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 13:24	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 13:24	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:24	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 13:24	75-35-4	
cis-1,2-Dichloroethene	0.33J	ug/L	1.0	0.26	1		09/29/14 13:24	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 13:24	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 13:24	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 13:24	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 13:24	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-1/TW 9-1 **Lab ID:** 40103986004 Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:24	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:24	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 13:24	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 13:24	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 13:24	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 13:24	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 13:24	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 13:24	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:24	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:24	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 13:24	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 13:24	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:24	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	108-67-8	
Vinyl chloride	17.1	ug/L	1.0	0.18	1		09/29/14 13:24	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 13:24	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90 %		59-130		1		09/29/14 13:24	460-00-4	
Dibromofluoromethane (S)	97 %		70-130		1		09/29/14 13:24	1868-53-7	
Toluene-d8 (S)	97 %		70-130		1		09/29/14 13:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2/TW 9-2 **Lab ID:** 40103986005 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	11.7J	ug/L	20.0	7.2	1		10/01/14 13:22	7440-38-2	
Barium, Dissolved	266	ug/L	5.0	1.4	1		10/01/14 13:22	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/01/14 13:22	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/01/14 13:22	7440-47-3	
Lead, Dissolved	5.5J	ug/L	7.5	3.0	1		10/01/14 13:22	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/01/14 13:22	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/01/14 13:22	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	10/06/14 14:10	10/07/14 12:10	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:47	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 13:47	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 13:47	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:47	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 13:47	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 13:47	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 13:47	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 13:47	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 13:47	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 13:47	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 13:47	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 13:47	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 13:47	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:47	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 13:47	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 13:47	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 13:47	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 13:47	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 13:47	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 13:47	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2/TW 9-2 Lab ID: 40103986005 Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 13:47	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:47	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 13:47	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 13:47	75-09-2	
Methyl-tert-butyl ether	0.42J	ug/L	1.0	0.17	1		09/29/14 13:47	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 13:47	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 13:47	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 13:47	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 13:47	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 13:47	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 13:47	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 13:47	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 13:47	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 13:47	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 13:47	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 13:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91 %		59-130		1		09/29/14 13:47	460-00-4	
Dibromofluoromethane (S)	97 %		70-130		1		09/29/14 13:47	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		09/29/14 13:47	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2 5-7.5 **Lab ID:** 40103986006 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 13:02		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 13:52	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 13:52	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 13:52	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 13:52	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 13:52	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2 5-7.5 **Lab ID:** 40103986006 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 13:52	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	10061-01-5	W
m&p-Xylene	59.5J	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 13:52	179601-23-1	
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 13:52	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	90	%	37-152		1	09/25/14 09:20	09/25/14 13:52	1868-53-7	
Toluene-d8 (S)	105	%	38-154		1	09/25/14 09:20	09/25/14 13:52	2037-26-5	
4-Bromofluorobenzene (S)	96	%	39-139		1	09/25/14 09:20	09/25/14 13:52	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2 7.5-10 **Lab ID: 40103986007** Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 13:28		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 14:14	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 14:14	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 14:14	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 14:14	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 14:14	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-2 7.5-10 **Lab ID:** 40103986007 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 14:14	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 14:14	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:14	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	79	%	37-152		1	09/25/14 09:20	09/25/14 14:14	1868-53-7	
Toluene-d8 (S)	89	%	38-154		1	09/25/14 09:20	09/25/14 14:14	2037-26-5	
4-Bromofluorobenzene (S)	79	%	39-139		1	09/25/14 09:20	09/25/14 14:14	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3 2.5-5 **Lab ID:** 40103986008 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 11:45		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 14:35	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 14:35	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 14:35	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 14:35	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 14:35	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3 2.5-5 **Lab ID:** 40103986008 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 14:35	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	108-88-3	W
Trichloroethene	86.5	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 14:35	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:35	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	83	%	37-152		1	09/25/14 09:20	09/25/14 14:35	1868-53-7	
Toluene-d8 (S)	96	%	38-154		1	09/25/14 09:20	09/25/14 14:35	2037-26-5	
4-Bromofluorobenzene (S)	89	%	39-139		1	09/25/14 09:20	09/25/14 14:35	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3 7.5-10 Lab ID: 40103986009 Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 21:46		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 14:57	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 14:57	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 14:57	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 14:57	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 14:57	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-3 7.5-10 **Lab ID: 40103986009** Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 14:57	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	108-88-3	W
Trichloroethene	579	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 14:57	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 14:57	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	84	%	37-152		1	09/25/14 09:20	09/25/14 14:57	1868-53-7	
Toluene-d8 (S)	97	%	38-154		1	09/25/14 09:20	09/25/14 14:57	2037-26-5	
4-Bromofluorobenzene (S)	89	%	39-139		1	09/25/14 09:20	09/25/14 14:57	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-4 5-7.5 Lab ID: 40103986010 Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 22:12		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 15:18	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 15:18	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 15:18	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 15:18	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 15:18	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-4 5-7.5 **Lab ID: 40103986010** Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 15:18	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 15:18	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:18	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	87 %		37-152		1	09/25/14 09:20	09/25/14 15:18	1868-53-7	
Toluene-d8 (S)	99 %		38-154		1	09/25/14 09:20	09/25/14 15:18	2037-26-5	
4-Bromofluorobenzene (S)	88 %		39-139		1	09/25/14 09:20	09/25/14 15:18	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-4 10-12.5 **Lab ID:** 40103986011 **Collected:** 09/17/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5 mg/kg		2.5	2.5	1	09/29/14 07:48	09/29/14 22:38		
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	630-20-6	W
1,1,1-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	79-34-5	W
1,1,2-Trichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	79-00-5	W
1,1-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-34-3	W
1,1-Dichloroethene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-35-4	W
1,1-Dichloropropene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	563-58-6	W
1,2,3-Trichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	87-61-6	W
1,2,3-Trichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	96-18-4	W
1,2,4-Trichlorobenzene	<47.6 ug/kg		250	47.6	1	09/25/14 09:20	09/25/14 15:40	120-82-1	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2 ug/kg		250	91.2	1	09/25/14 09:20	09/25/14 15:40	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	106-93-4	W
1,2-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	95-50-1	W
1,2-Dichloroethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	107-06-2	W
1,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	78-87-5	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	108-67-8	W
1,3-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	541-73-1	W
1,3-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	142-28-9	W
1,4-Dichlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	106-46-7	W
2,2-Dichloropropane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	594-20-7	W
2-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	95-49-8	W
4-Chlorotoluene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	106-43-4	W
Benzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	71-43-2	W
Bromobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	108-86-1	W
Bromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	74-97-5	W
Bromodichloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-27-4	W
Bromoform	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-25-2	W
Bromomethane	<69.9 ug/kg		250	69.9	1	09/25/14 09:20	09/25/14 15:40	74-83-9	W
Carbon tetrachloride	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	56-23-5	W
Chlorobenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	108-90-7	W
Chloroethane	<67.0 ug/kg		250	67.0	1	09/25/14 09:20	09/25/14 15:40	75-00-3	L3,W
Chloroform	<46.4 ug/kg		250	46.4	1	09/25/14 09:20	09/25/14 15:40	67-66-3	W
Chloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	74-87-3	W
Dibromochloromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	124-48-1	W
Dibromomethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	74-95-3	W
Dichlorodifluoromethane	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-71-8	W
Diisopropyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	108-20-3	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	100-41-4	W
Hexachloro-1,3-butadiene	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	87-68-3	W
Isopropylbenzene (Cumene)	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	98-82-8	W
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	1634-04-4	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: GP-9-4 10-12.5 **Lab ID: 40103986011** Collected: 09/17/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 15:40	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	108-88-3	W
Trichloroethene	49.7J	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 15:40	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 15:40	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	83	%	37-152		1	09/25/14 09:20	09/25/14 15:40	1868-53-7	
Toluene-d8 (S)	95	%	38-154		1	09/25/14 09:20	09/25/14 15:40	2037-26-5	
4-Bromofluorobenzene (S)	88	%	39-139		1	09/25/14 09:20	09/25/14 15:40	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: TRIP BLANK **Lab ID: 40103986012** Collected: 09/17/14 00:00 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 16:24	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 16:24	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 16:24	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 16:24	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 16:24	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 16:24	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 16:24	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 16:24	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 16:24	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 16:24	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 16:24	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 16:24	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 16:24	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 16:24	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 16:24	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 16:24	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 16:24	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 16:24	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 16:24	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 16:24	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 16:24	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 16:24	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 16:24	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 16:24	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 16:24	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 16:24	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:24	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 16:24	630-20-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Sample: TRIP BLANK		Lab ID: 40103986012	Collected: 09/17/14 00:00	Received: 09/24/14 08:35	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.25 ug/L		1.0	0.25	1		09/29/14 16:24	79-34-5	
Tetrachloroethene	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	127-18-4	
Toluene	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	108-88-3	
1,2,3-Trichlorobenzene	<2.1 ug/L		5.0	2.1	1		09/29/14 16:24	87-61-6	
1,2,4-Trichlorobenzene	<2.2 ug/L		5.0	2.2	1		09/29/14 16:24	120-82-1	
1,1,1-Trichloroethane	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	71-55-6	
1,1,2-Trichloroethane	<0.16 ug/L		1.0	0.16	1		09/29/14 16:24	79-00-5	
Trichloroethene	<0.33 ug/L		1.0	0.33	1		09/29/14 16:24	79-01-6	
Trichlorofluoromethane	<0.17 ug/L		1.0	0.17	1		09/29/14 16:24	75-69-4	
1,2,3-Trichloropropane	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	96-18-4	
1,2,4-Trimethylbenzene	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	95-63-6	
1,3,5-Trimethylbenzene	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	108-67-8	
Vinyl chloride	<0.18 ug/L		1.0	0.18	1		09/29/14 16:24	75-01-4	
m&p-Xylene	<1.0 ug/L		2.0	1.0	1		09/29/14 16:24	179601-23-1	
o-Xylene	<0.50 ug/L		1.0	0.50	1		09/29/14 16:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	88 %		59-130		1		09/29/14 16:24	460-00-4	
Dibromofluoromethane (S)	96 %		70-130		1		09/29/14 16:24	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		09/29/14 16:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

QC Batch:	GCV/13256	Analysis Method:	WI MOD GRO
QC Batch Method:	TPH GRO/PVOC WI ext.	Analysis Description:	WIGRO Solid GCV
Associated Lab Samples:	40103986002, 40103986003, 40103986006, 40103986007, 40103986008, 40103986009, 40103986010, 40103986011		

METHOD BLANK:	1053451	Matrix:	Solid
Associated Lab Samples:	40103986002, 40103986003, 40103986006, 40103986007, 40103986008, 40103986009, 40103986010, 40103986011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	<1.6	2.5	09/29/14 10:28	
a,a,a-Trifluorotoluene (S)	%	101	80-120	09/29/14 10:28	

LABORATORY CONTROL SAMPLE & LCSD:		1053452	1053453							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	mg/kg	10	10.6	9.6	106	96	80-120	10	20	
a,a,a-Trifluorotoluene (S)	%				102	102	80-120			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103986

QC Batch: ICP/9629 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40103986001, 40103986005

METHOD BLANK: 1055192 Matrix: Water
Associated Lab Samples: 40103986001, 40103986005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/01/14 13:02	
Barium, Dissolved	ug/L	<1.4	5.0	10/01/14 13:02	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/01/14 13:02	
Chromium, Dissolved	ug/L	<2.1	5.0	10/01/14 13:02	
Lead, Dissolved	ug/L	<3.0	7.5	10/01/14 13:02	
Selenium, Dissolved	ug/L	<6.7	20.0	10/01/14 13:02	
Silver, Dissolved	ug/L	<2.7	10.0	10/01/14 13:02	

LABORATORY CONTROL SAMPLE: 1055193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	512	102	80-120	
Barium, Dissolved	ug/L	500	476	95	80-120	
Cadmium, Dissolved	ug/L	500	489	98	80-120	
Chromium, Dissolved	ug/L	500	527	105	80-120	
Lead, Dissolved	ug/L	500	515	103	80-120	
Selenium, Dissolved	ug/L	500	504	101	80-120	
Silver, Dissolved	ug/L	250	252	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055194 1055195

Parameter	Units	40103984005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	499	496	100	99	75-125	1	20	
Barium, Dissolved	ug/L	69.3	500	500	516	519	89	90	75-125	1	20	
Cadmium, Dissolved	ug/L	3.4J	500	500	478	480	95	95	75-125	1	20	
Chromium, Dissolved	ug/L	<2.1	500	500	503	499	100	100	75-125	1	20	
Lead, Dissolved	ug/L	<3.0	500	500	493	494	98	98	75-125	0	20	
Selenium, Dissolved	ug/L	<6.7	500	500	495	505	99	101	75-125	2	20	
Silver, Dissolved	ug/L	<2.7	250	250	228	229	91	92	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

QC Batch: MERP/4516

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury Dissolved

Associated Lab Samples: 40103986001, 40103986004, 40103986005

METHOD BLANK: 1058920

Matrix: Water

Associated Lab Samples: 40103986001, 40103986004, 40103986005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	10/07/14 11:18	

LABORATORY CONTROL SAMPLE: 1058921

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.6	92	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1058922 1058923

Parameter	Units	40104266001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	4.7	4.6	94	92	85-115	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103986

QC Batch:	MPRP/10880	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
Associated Lab Samples:	40103986004		

METHOD BLANK: 1054902 Matrix: Water
Associated Lab Samples: 40103986004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<6.8	20.0	10/01/14 18:36	
Barium, Dissolved	ug/L	<1.7	5.0	10/01/14 18:36	
Cadmium, Dissolved	ug/L	<1.0	5.0	10/01/14 18:36	
Chromium, Dissolved	ug/L	<1.5	5.0	10/01/14 18:36	
Lead, Dissolved	ug/L	<1.6	7.5	10/01/14 18:36	
Selenium, Dissolved	ug/L	<6.8	20.0	10/01/14 18:36	
Silver, Dissolved	ug/L	<3.2	10.0	10/01/14 18:36	

LABORATORY CONTROL SAMPLE: 1054903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	519	104	80-120	
Barium, Dissolved	ug/L	500	472	94	80-120	
Cadmium, Dissolved	ug/L	500	489	98	80-120	
Chromium, Dissolved	ug/L	500	538	108	80-120	
Lead, Dissolved	ug/L	500	522	104	80-120	
Selenium, Dissolved	ug/L	500	504	101	80-120	
Silver, Dissolved	ug/L	250	254	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1054904 1054905

Parameter	Units	40103788005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	7.7J	500	500	522	521	103	103	75-125	0	20	
Barium, Dissolved	ug/L	101	500	500	578	573	95	94	75-125	1	20	
Cadmium, Dissolved	ug/L	<1.0	500	500	494	493	99	99	75-125	0	20	
Chromium, Dissolved	ug/L	5.9	500	500	542	537	107	106	75-125	1	20	
Lead, Dissolved	ug/L	4.8J	500	500	521	519	103	103	75-125	0	20	
Selenium, Dissolved	ug/L	<6.8	500	500	507	510	101	101	75-125	1	20	
Silver, Dissolved	ug/L	<3.2	250	250	255	254	102	101	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103986

QC Batch:	MSV/25893	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	40103986002, 40103986003, 40103986006, 40103986007, 40103986008, 40103986009, 40103986010, 40103986011		

METHOD BLANK:	1051769	Matrix:	Solid
Associated Lab Samples:	40103986002, 40103986003, 40103986006, 40103986007, 40103986008, 40103986009, 40103986010, 40103986011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:35	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:35	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:35	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:35	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:35	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:35	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:35	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:35	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:35	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:35	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:35	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:35	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:35	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:35	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:35	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:35	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:35	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:35	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:35	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:35	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:35	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:35	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:35	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:35	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:35	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:35	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:35	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:35	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:35	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:35	
Chloroform	ug/kg	<46.4	250	09/25/14 09:35	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:35	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:35	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:35	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:35	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:35	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:35	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:35	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

METHOD BLANK: 1051769

Matrix: Solid

Associated Lab Samples: 40103986002, 40103986003, 40103986006, 40103986007, 40103986008, 40103986009, 40103986010, 40103986011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:35	
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:35	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:35	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:35	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:35	
Methylene Chloride	ug/kg	20.0J	50.0	09/25/14 09:35	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:35	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:35	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:35	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:35	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:35	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:35	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:35	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:35	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:35	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:35	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:35	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:35	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:35	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:35	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:35	
4-Bromofluorobenzene (S)	%	97	39-139	09/25/14 09:35	
Dibromofluoromethane (S)	%	96	37-152	09/25/14 09:35	
Toluene-d8 (S)	%	109	38-154	09/25/14 09:35	

LABORATORY CONTROL SAMPLE & LCSD: 1051770

1051771

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2520	2480	101	99	70-130	2	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2200	2180	88	87	70-130	1	20	
1,1,2-Trichloroethane	ug/kg	2500	2840	2780	114	111	70-130	2	20	
1,1-Dichloroethane	ug/kg	2500	2600	2500	104	100	70-130	4	20	
1,1-Dichloroethene	ug/kg	2500	2290	2230	92	89	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2250	2310	90	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1960	2050	79	82	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2640	2590	106	104	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	2500	2410	2390	97	96	70-130	1	20	
1,2-Dichloroethane	ug/kg	2500	2620	2560	105	102	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2710	2700	108	108	70-130	0	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2410	98	96	70-130	1	20	
1,4-Dichlorobenzene	ug/kg	2500	2400	2380	96	95	70-130	1	20	
Benzene	ug/kg	2500	2580	2510	103	100	70-130	3	20	
Bromodichloromethane	ug/kg	2500	2390	2340	95	94	70-130	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

LABORATORY CONTROL SAMPLE & LCSD: 1051770			1051771							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Bromoform	ug/kg	2500	1880	1850	75	74	70-130	2	20	
Bromomethane	ug/kg	2500	2940	2900	118	116	34-173	1	20	
Carbon tetrachloride	ug/kg	2500	2290	2270	92	91	70-130	1	20	
Chlorobenzene	ug/kg	2500	2620	2560	105	102	70-130	2	20	
Chloroethane	ug/kg	2500	4620	4300	185	172	44-173	7	20	L0
Chloroform	ug/kg	2500	2290	2260	92	91	70-130	1	20	
Chloromethane	ug/kg	2500	2230	2100	89	84	43-130	6	20	
cis-1,2-Dichloroethene	ug/kg	2500	2430	2400	97	96	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2270	2260	91	90	70-130	0	20	
Dibromochloromethane	ug/kg	2500	2260	2200	90	88	70-130	3	20	
Dichlorodifluoromethane	ug/kg	2500	1480	1340	59	54	10-150	10	20	
Ethylbenzene	ug/kg	2500	2790	2730	111	109	70-130	2	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2690	2620	107	105	70-130	3	20	
m&p-Xylene	ug/kg	5000	5360	5180	107	104	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2540	2450	102	98	65-131	4	20	
Methylene Chloride	ug/kg	2500	2530	2450	101	98	64-143	3	20	
o-Xylene	ug/kg	2500	2710	2630	108	105	70-130	3	20	
Styrene	ug/kg	2500	2440	2390	97	96	70-130	2	20	
Tetrachloroethene	ug/kg	2500	2340	2270	94	91	70-130	3	20	
Toluene	ug/kg	2500	2760	2690	110	107	70-130	3	20	
trans-1,2-Dichloroethene	ug/kg	2500	2430	2350	97	94	70-130	4	20	
trans-1,3-Dichloropropene	ug/kg	2500	2360	2330	94	93	70-130	1	20	
Trichloroethene	ug/kg	2500	2750	2710	110	109	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2360	2250	95	90	50-150	5	20	
Vinyl chloride	ug/kg	2500	2490	2380	100	95	57-130	4	20	
4-Bromofluorobenzene (S)	%				100	101	39-139			
Dibromofluoromethane (S)	%				106	105	37-152			
Toluene-d8 (S)	%				112	111	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103986

QC Batch: MSV/25920 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40103986001, 40103986004, 40103986005, 40103986012

METHOD BLANK: 1053422 Matrix: Water
Associated Lab Samples: 40103986001, 40103986004, 40103986005, 40103986012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 08:10	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 08:10	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 08:10	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 08:10	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 08:10	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 08:10	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 08:10	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 08:10	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 08:10	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 08:10	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 08:10	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 08:10	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 08:10	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 08:10	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 08:10	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 08:10	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 08:10	
Benzene	ug/L	<0.50	1.0	09/29/14 08:10	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 08:10	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 08:10	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Bromoform	ug/L	<0.50	1.0	09/29/14 08:10	
Bromomethane	ug/L	<2.4	5.0	09/29/14 08:10	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 08:10	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Chloroethane	ug/L	<0.37	1.0	09/29/14 08:10	
Chloroform	ug/L	<2.5	5.0	09/29/14 08:10	
Chloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 08:10	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 08:10	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 08:10	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 08:10	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103986

METHOD BLANK: 1053422 Matrix: Water
Associated Lab Samples: 40103986001, 40103986004, 40103986005, 40103986012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 08:10	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 08:10	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 08:10	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 08:10	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 08:10	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 08:10	
Naphthalene	ug/L	<2.5	5.0	09/29/14 08:10	
o-Xylene	ug/L	<0.50	1.0	09/29/14 08:10	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 08:10	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 08:10	
Styrene	ug/L	<0.50	1.0	09/29/14 08:10	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 08:10	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 08:10	
Toluene	ug/L	<0.50	1.0	09/29/14 08:10	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 08:10	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 08:10	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 08:10	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 08:10	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 08:10	
4-Bromofluorobenzene (S)	%	91	59-130	09/29/14 08:10	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 08:10	
Toluene-d8 (S)	%	96	70-130	09/29/14 08:10	

LABORATORY CONTROL SAMPLE & LCSD: 1053423

		1053424								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.7	49.2	97	98	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	50	49.4	51.1	99	102	70-130	3	20	
1,1,2-Trichloroethane	ug/L	50	51.8	54.5	104	109	70-130	5	20	
1,1-Dichloroethane	ug/L	50	57.9	58.1	116	116	70-130	0	20	
1,1-Dichloroethene	ug/L	50	62.7	62.7	125	125	70-132	0	20	
1,2,4-Trichlorobenzene	ug/L	50	52.2	56.1	104	112	70-130	7	20	
1,2-Dibromo-3-chloropropane	ug/L	50	41.0	44.4	82	89	50-150	8	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.6	54.1	107	108	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.9	53.9	106	108	70-130	2	20	
1,2-Dichloroethane	ug/L	50	54.2	54.6	108	109	70-130	1	20	
1,2-Dichloropropane	ug/L	50	56.6	58.0	113	116	70-130	2	20	
1,3-Dichlorobenzene	ug/L	50	52.3	52.8	105	106	70-130	1	20	
1,4-Dichlorobenzene	ug/L	50	50.5	51.6	101	103	70-130	2	20	
Benzene	ug/L	50	59.3	59.4	119	119	70-130	0	20	
Bromodichloromethane	ug/L	50	53.0	54.0	106	108	70-130	2	20	
Bromoform	ug/L	50	42.2	42.8	84	86	70-130	1	20	
Bromomethane	ug/L	50	42.5	47.9	85	96	34-157	12	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

LABORATORY CONTROL SAMPLE & LCSD:		1053423	1053424							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	50.4	52.2	101	104	70-132	3	20	
Chlorobenzene	ug/L	50	54.2	55.5	108	111	70-130	2	20	
Chloroethane	ug/L	50	66.7	64.1	133	128	60-143	4	20	
Chloroform	ug/L	50	47.0	45.9	94	92	70-130	2	20	
Chloromethane	ug/L	50	72.8	72.5	146	145	43-148	0	20	
cis-1,2-Dichloroethene	ug/L	50	55.7	54.7	111	109	51-133	2	20	
cis-1,3-Dichloropropene	ug/L	50	52.1	52.7	104	105	70-130	1	20	
Dibromochloromethane	ug/L	50	50.0	53.1	100	106	70-130	6	20	
Dichlorodifluoromethane	ug/L	50	77.6	76.2	155	152	10-174	2	20	
Ethylbenzene	ug/L	50	58.2	59.3	116	119	70-130	2	20	
Isopropylbenzene (Cumene)	ug/L	50	58.3	59.1	117	118	70-136	1	20	
m&p-Xylene	ug/L	100	115	115	115	115	70-131	0	20	
Methyl-tert-butyl ether	ug/L	50	52.9	52.9	106	106	54-139	0	20	
Methylene Chloride	ug/L	50	58.7	58.0	117	116	70-130	1	20	
o-Xylene	ug/L	50	57.3	57.8	115	116	70-130	1	20	
Styrene	ug/L	50	52.8	52.7	106	105	70-130	0	20	
Tetrachloroethene	ug/L	50	55.5	56.6	111	113	70-130	2	20	
Toluene	ug/L	50	55.8	56.1	112	112	70-130	0	20	
trans-1,2-Dichloroethene	ug/L	50	60.1	59.9	120	120	70-130	0	20	
trans-1,3-Dichloropropene	ug/L	50	43.2	45.7	86	91	70-130	5	20	
Trichloroethene	ug/L	50	58.4	58.9	117	118	70-130	1	20	
Trichlorofluoromethane	ug/L	50	62.6	62.3	125	125	50-150	1	20	
Vinyl chloride	ug/L	50	70.3	71.4	141	143	59-157	2	20	
4-Bromofluorobenzene (S)	%				102	104	59-130			
Dibromofluoromethane (S)	%				94	93	70-130			
Toluene-d8 (S)	%				96	97	70-130			

MATRIX SPIKE SAMPLE:	1053739						
		40104103012	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	50	40.8	82	70-130	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	60.5	121	70-130	
1,1,2-Trichloroethane	ug/L	<0.16	50	57.6	115	70-130	
1,1-Dichloroethane	ug/L	<0.24	50	54.5	109	70-130	
1,1-Dichloroethene	ug/L	<0.41	50	57.7	115	70-138	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	47.8	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	47.0	94	50-150	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	56.3	113	70-130	
1,2-Dichlorobenzene	ug/L	<0.50	50	51.3	103	70-130	
1,2-Dichloroethane	ug/L	<0.17	50	54.0	108	70-130	
1,2-Dichloropropane	ug/L	<0.23	50	54.6	109	70-130	
1,3-Dichlorobenzene	ug/L	<0.50	50	49.4	99	70-130	
1,4-Dichlorobenzene	ug/L	<0.50	50	48.4	97	70-130	
Benzene	ug/L	<0.50	50	56.5	113	70-130	
Bromodichloromethane	ug/L	<0.50	50	51.4	103	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103986

MATRIX SPIKE SAMPLE:		1053739					
Parameter	Units	40104103012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	<0.50	50	44.3	89	70-130	
Bromomethane	ug/L	<2.4	50	15.9	32	34-159	M1
Carbon tetrachloride	ug/L	<0.50	50	41.6	83	70-132	
Chlorobenzene	ug/L	<0.50	50	53.5	107	70-130	
Chloroethane	ug/L	<0.37	50	59.8	120	60-143	
Chloroform	ug/L	<2.5	50	43.2	86	70-130	
Chloromethane	ug/L	<0.50	50	56.7	113	43-149	
cis-1,2-Dichloroethene	ug/L	<0.26	50	42.5	85	48-137	
cis-1,3-Dichloropropene	ug/L	<0.50	50	41.8	84	70-130	
Dibromochloromethane	ug/L	<0.50	50	51.3	103	70-130	
Dichlorodifluoromethane	ug/L	<0.20	50	66.9	134	10-174	
Ethylbenzene	ug/L	<0.50	50	56.0	112	70-130	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	54.7	109	70-136	
m&p-Xylene	ug/L	<1.0	100	109	109	70-135	
Methyl-tert-butyl ether	ug/L	<0.17	50	46.8	94	54-139	
Methylene Chloride	ug/L	<0.23	50	53.4	107	70-133	
o-Xylene	ug/L	<0.50	50	55.1	110	70-130	
Styrene	ug/L	<0.50	50	50.7	101	70-130	
Tetrachloroethene	ug/L	<0.50	50	53.5	107	70-130	
Toluene	ug/L	<0.50	50	54.9	110	70-130	
trans-1,2-Dichloroethene	ug/L	<0.26	50	55.9	112	70-130	
trans-1,3-Dichloropropene	ug/L	<0.23	50	32.6	65	70-130	M1
Trichloroethene	ug/L	<0.33	50	57.1	114	70-130	
Trichlorofluoromethane	ug/L	<0.17	50	56.7	113	50-150	
Vinyl chloride	ug/L	<0.18	50	57.3	115	59-158	
4-Bromofluorobenzene (S)	%				101	59-130	HS
Dibromofluoromethane (S)	%				86	70-130	
Toluene-d8 (S)	%				96	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

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

QUALIFIERS

Project: 223432 WINNECONNE

Pace Project No.: 40103986

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: MSV/25894

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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

W Non-detect results are reported on a wet weight basis.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 223432 WINNECONNE

Pace Project No.: 40103986

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40103986002	GP-9-1 2.5-5	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986003	GP-9-1 7.5-10	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986006	GP-9-2 5-7.5	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986007	GP-9-2 7.5-10	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986008	GP-9-3 2.5-5	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986009	GP-9-3 7.5-10	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986010	GP-9-4 5-7.5	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986011	GP-9-4 10-12.5	TPH GRO/PVOC WI ext.	GCV/13256	WI MOD GRO	GCV/13263
40103986004	GP-9-1/TW 9-1	EPA 3010	MPRP/10880	EPA 6010	ICP/9633
40103986001	GP-9-3/TW 9-3	EPA 6010	ICP/9629		
40103986005	GP-9-2/TW 9-2	EPA 6010	ICP/9629		
40103986001	GP-9-3/TW 9-3	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103986004	GP-9-1/TW 9-1	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103986005	GP-9-2/TW 9-2	EPA 7470	MERP/4516	EPA 7470	MERC/6037
40103986002	GP-9-1 2.5-5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986003	GP-9-1 7.5-10	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986006	GP-9-2 5-7.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986007	GP-9-2 7.5-10	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986008	GP-9-3 2.5-5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986009	GP-9-3 7.5-10	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986010	GP-9-4 5-7.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986011	GP-9-4 10-12.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103986001	GP-9-3/TW 9-3	EPA 8260	MSV/25920		
40103986004	GP-9-1/TW 9-1	EPA 8260	MSV/25920		
40103986005	GP-9-2/TW 9-2	EPA 8260	MSV/25920		
40103986012	TRIP BLANK	EPA 8260	MSV/25920		

REPORT OF LABORATORY ANALYSIS

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



QNS

40103986

Quote #:	
Mail To Contact:	Dennis Stewart
Mail To Company:	TRE
Mail To Address:	

[illegible]

(Please Print Clearly)

Company Name:	TRC
Branch/Location:	MADISON
Project Contact:	Dennis Siebert
Phone:	608-826-3659
Project Number:	223432
Project Name:	Winecone
Project State:	WI
Sampled By (Print):	Dennis Siebert
Sampled By (Sign):	Dennis Siebert
PO #:	

Data Package Options

☐ EPA Level III	☐ On your sample (billable)
☐ EPA Level IV	☐ NOT needed on your sample

Matrix Codes

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

Regulatory Program:	
Filtered? (YES/NO)	
Preservation (CODE)	

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

CHAIN OF CUSTODY



www.faceanals.com

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

Page 1 of

40103986

Page 50 of 52

V/N	Pack	Letter
	A	

Analyses Requested

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

Quote #:	
Mail To Contact:	Dennis Siebert
Mail To Company:	TRC
Mail To Address:	C/OA EMAIL
Invoice To Contact:	Accts Payable
Invoice To Company:	TRC
Invoice To Address:	
Invoice To Phone:	

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX	Analysis Requested	V/N	Pack	Letter	Received By:	Date/Time:	Received By:	Date/Time:	Receipt Temp =	Sample Receipt pH	Cooler Custody Seal
01B	GP-11-2-12.5-15	9/18	9:45	S											
014	GP-11-2-2.5-5		10:00	S											
015	GP-9-3/TW 9-3	9/17	3:30	W											
016	GP-11-3-5-7.5	9/18	11:00	S											
017	GP-11-3-12.5-15		11:00	S											
018	GP-12-1-2.5-5		12:30	S											
019	GP-12-1-12.5-15		12:30	S											
020	GP-12-2-5-7.5		1:45	S											
021	GP-12-2-12.5-15		1:45	S											
022	GP-12-3-10-12.5		3:30	S											
023	GP-12-3-17.5-20		3:30	S											

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

Relinquished By: Dennis Siebert
Date/Time: 9/18/14

Received By: Ryan Schmitt
Date/Time: 9/24/14

PAGE Project No. 40103986

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

Relinquished By: Walter
Date/Time: 9/24/14

Received By: Ryan Schmitt
Date/Time: 9/24/14

Receipt Temp = 101 °C

Email #1:

Relinquished By: Walter
Date/Time: 9/24/14

Received By: Ryan Schmitt
Date/Time: 9/24/14

Sample Receipt pH (Ox / Adjusted)

Telephone:

Relinquished By: Walter
Date/Time: 9/24/14

Received By: Ryan Schmitt
Date/Time: 9/24/14

Cooler Custody Seal Present / Not Present

Jacki Johnson - Fwd: Winneconne analytical samples from TRC

40103986

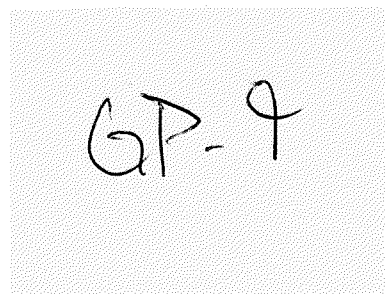
From: Tod Noltemeyer
To: Hamilton, Abigail; Johnson, Jacki; WI Sample Receiving
Date: 9/24/2014 10:47 AM
Subject: Fwd: Winneconne analytical samples from TRC

Per below, for TRC Winneconne project coming in to GB this morning put the samples in five batches: GP5, GP8, GP9, GP11, GP12 I think are the numbers. They are not on separate COCs, but they need those different GP sample sites in different workorders.

Thanks, Tod

Project Manager
 Pace Analytical - WI
 (608) 232-3300

Tod.Noltemeyer@pacelabs.com



>>> "Siewert, Dennis" <DSiewert@trcsolutions.com> 9/24/2014 10:10 AM >>>

Tod,

At some point, I believe that we will need to provide separate analytical data to the owners of each of the 5 sites that we investigated, including soils and groundwater results. Can we get an output from you which would include 5 separate sub reports for the 5 sites? The reason we would like to do this is to offer each site owner confidential results for their respective site.

Please let me know if this is something you could help us out with.

Thanks,

Dennis

Dennis S. Siewert
 Senior Designer
 (Mechanical & Electrical)



708 Heartland Trail, Suite 3000 Madison, WI
 T: 608.826.3659 | F: 608.826.3941 | C: 608.235.7084

Follow us on [LinkedIn](#) or [Twitter](#) | www.trcsolutions.com

This email has been scanned by the Symantec Email Security.cloud service.
 For more information please visit <http://www.symanteccloud.com>

Sample Condition Upon Receipt

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

Pace Analytical

Project #:

WO# : 40103986

Client Name: TRC

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Waltco
Tracking #: 640060-1/2/13



40103986

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: ☒ Blue Dry None

☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20 / Corr:

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Person examining contents:

Date: 9/24/14

Initials: RUS

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: <u>9/24/14</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>ORD hold up 9/27</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7. <u>RUS 9/24/14</u>
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. <u>times on VOA's different for 007, 8, 9, 12, 15, 30</u>
- Includes date/time/ID/Analysis Matrix:		<u>label washed off VOA 008, see comments RUS 9/24/14</u>
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 <u>RUS</u> 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): <u>327</u>		

Client Notification/ Resolution:

Person Contacted:

Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

013 VOA and GRS ID is "GP 11-2 12.5-15", no sample times 001-006 VOA, 010, 011, 16-25
28, 29, 31-36 VOA, no sample times on 400 soils except 5, 6, 13, 14 RUS 9/24/14

Project Manager Review:

JJ for TM

Date:

9/24/14

October 08, 2014

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

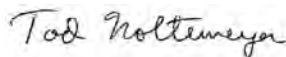
RE: Project: 223432 WINNECONNE Site 11
Pace Project No.: 40103985

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2014. 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,



Tod Noltemeyer
tod.noltemeyer@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

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

New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40103985001	GP-11-2 12.5-15	Solid	09/18/14 09:45	09/24/14 08:35
40103985002	GP-11-2 2.5-5	Solid	09/18/14 10:00	09/24/14 08:35
40103985003	GP-11-3 5-7.5	Solid	09/18/14 11:00	09/24/14 08:35
40103985004	GP-11-3 12.5-15	Solid	09/18/14 11:00	09/24/14 08:35
40103985005	GP-11-1 2.5-5	Solid	09/17/14 13:30	09/24/14 08:35
40103985006	GP-11-1 7.5-10	Solid	09/17/14 13:30	09/24/14 08:35
40103942003	TRC-11-3	Water	09/22/14 12:12	09/24/14 08:35
40103942004	TRC-11-1	Water	09/22/14 13:02	09/24/14 08:35
40103942005	TRC-11-2	Water	09/22/14 13:48	09/24/14 08:35

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103985001	GP-11-2 12.5-15	EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103985002	GP-11-2 2.5-5	EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103985003	GP-11-3 5-7.5	EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103985004	GP-11-3 12.5-15	EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103985005	GP-11-1 2.5-5	EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103985006	GP-11-1 7.5-10	EPA 6010	DLB, MMZ	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103942003	TRC-11-3	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G
40103942004	TRC-11-1	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G
40103942005	TRC-11-2	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
40103985001	GP-11-2 12.5-15					
EPA 6010	Arsenic	2.9 mg/kg		2.0	09/26/14 15:59	
EPA 6010	Barium	56.0 mg/kg		1.0	09/29/14 18:22	
EPA 6010	Chromium	18.1 mg/kg		0.50	09/26/14 15:59	
EPA 6010	Lead	4.4 mg/kg		1.0	09/26/14 15:59	
EPA 7471	Mercury	0.0055J mg/kg		0.0062	10/02/14 11:59	
EPA 8260	Methylene Chloride	27.4J ug/kg		60.0	09/25/14 11:01	
EPA 8260	Trichloroethene	430 ug/kg		60.0	09/25/14 11:01	
40103985002	GP-11-2 2.5-5					
EPA 6010	Arsenic	3.7 mg/kg		1.7	09/26/14 16:05	
EPA 6010	Barium	100 mg/kg		0.43	09/26/14 16:05	
EPA 6010	Chromium	28.8 mg/kg		0.43	09/26/14 16:05	
EPA 6010	Lead	14.1 mg/kg		0.86	09/26/14 16:05	
EPA 7471	Mercury	0.045 mg/kg		0.0058	10/02/14 12:02	
40103985003	GP-11-3 5-7.5					
EPA 6010	Arsenic	2.6 mg/kg		2.0	09/26/14 16:11	
EPA 6010	Barium	38.1 mg/kg		0.49	09/26/14 16:11	
EPA 6010	Chromium	16.0 mg/kg		0.49	09/26/14 16:11	
EPA 6010	Lead	5.5 mg/kg		0.98	09/26/14 16:11	
EPA 7471	Mercury	0.0096 mg/kg		0.0064	10/02/14 12:04	
40103985004	GP-11-3 12.5-15					
EPA 6010	Arsenic	5.8 mg/kg		1.8	09/26/14 16:14	
EPA 6010	Barium	55.0 mg/kg		2.3	09/29/14 18:33	
EPA 6010	Chromium	16.9 mg/kg		0.46	09/26/14 16:14	
EPA 6010	Lead	3.7 mg/kg		0.91	09/26/14 16:14	
EPA 7471	Mercury	0.0054J mg/kg		0.0058	10/02/14 12:10	
EPA 8260	Trichloroethene	522 ug/kg		60.0	09/25/14 12:05	
40103985005	GP-11-1 2.5-5					
EPA 6010	Arsenic	2.2 mg/kg		1.7	09/26/14 16:16	
EPA 6010	Barium	37.2 mg/kg		0.43	09/26/14 16:16	
EPA 6010	Chromium	14.4 mg/kg		0.43	09/26/14 16:16	
EPA 6010	Lead	4.0 mg/kg		0.87	09/26/14 16:16	
EPA 7471	Mercury	0.016 mg/kg		0.0056	10/02/14 12:13	
40103985006	GP-11-1 7.5-10					
EPA 6010	Arsenic	3.2 mg/kg		1.9	09/26/14 16:18	
EPA 6010	Barium	55.2 mg/kg		2.4	09/29/14 18:36	
EPA 6010	Chromium	18.6 mg/kg		0.48	09/26/14 16:18	
EPA 6010	Lead	4.3 mg/kg		0.95	09/26/14 16:18	
EPA 7471	Mercury	0.0072 mg/kg		0.0061	10/02/14 12:15	
EPA 8260	1,2,4-Trimethylbenzene	46.6J ug/kg		60.0	09/25/14 12:48	
EPA 8260	1,3,5-Trimethylbenzene	730 ug/kg		60.0	09/25/14 12:48	
EPA 8260	Ethylbenzene	474 ug/kg		60.0	09/25/14 12:48	
EPA 8260	Isopropylbenzene (Cumene)	162 ug/kg		60.0	09/25/14 12:48	
EPA 8260	Naphthalene	236J ug/kg		250	09/25/14 12:48	
EPA 8260	n-Propylbenzene	772 ug/kg		60.0	09/25/14 12:48	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103985006	GP-11-1 7.5-10					
EPA 8260	p-Isopropyltoluene	52.1J	ug/kg	60.0	09/25/14 12:48	
EPA 8260	sec-Butylbenzene	123	ug/kg	60.0	09/25/14 12:48	
40103942003	TRC-11-3					
EPA 6010	Barium, Dissolved	116	ug/L	5.0	10/03/14 15:30	
EPA 8260	Trichloroethene	64.8	ug/L	1.0	09/29/14 21:51	
40103942004	TRC-11-1					
EPA 6010	Arsenic, Dissolved	8.3J	ug/L	20.0	10/03/14 15:33	
EPA 6010	Barium, Dissolved	108	ug/L	5.0	10/03/14 15:33	
EPA 8260	Benzene	35.8	ug/L	2.5	09/29/14 18:07	
EPA 8260	n-Butylbenzene	6.5	ug/L	2.5	09/29/14 18:07	
EPA 8260	1,1-Dichloroethene	1.0J	ug/L	2.5	09/29/14 18:07	
EPA 8260	cis-1,2-Dichloroethene	137	ug/L	2.5	09/29/14 18:07	
EPA 8260	trans-1,2-Dichloroethene	1.3J	ug/L	2.5	09/29/14 18:07	
EPA 8260	Ethylbenzene	97.9	ug/L	2.5	09/29/14 18:07	
EPA 8260	Isopropylbenzene (Cumene)	11.8	ug/L	2.5	09/29/14 18:07	
EPA 8260	p-Isopropyltoluene	1.5J	ug/L	2.5	09/29/14 18:07	
EPA 8260	Naphthalene	23.3	ug/L	12.5	09/29/14 18:07	
EPA 8260	n-Propylbenzene	22.4	ug/L	2.5	09/29/14 18:07	
EPA 8260	Tetrachloroethene	4.0	ug/L	2.5	09/29/14 18:07	
EPA 8260	Toluene	13.7	ug/L	2.5	09/29/14 18:07	
EPA 8260	Trichloroethene	130	ug/L	2.5	09/29/14 18:07	
EPA 8260	1,2,4-Trimethylbenzene	3.1	ug/L	2.5	09/29/14 18:07	
EPA 8260	1,3,5-Trimethylbenzene	23.0	ug/L	2.5	09/29/14 18:07	
EPA 8260	m&p-Xylene	19.2	ug/L	5.0	09/29/14 18:07	
40103942005	TRC-11-2					
EPA 6010	Barium, Dissolved	52.1	ug/L	5.0	10/03/14 15:35	
EPA 6010	Lead, Dissolved	<3.0	ug/L	7.5	10/03/14 15:35	
EPA 8260	Trichloroethene	1030	ug/L	10.0	09/29/14 18:30	

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 6010

Description: 6010 MET ICP

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 7471

Description: 7471 Mercury

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25893

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1051770)
- Chloroethane

Matrix Spikes:

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

QC Batch: MSV/25893

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Method: EPA 8260

Description: 8260 MSV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-2 12.5-15 **Lab ID:** 40103985001 **Collected:** 09/18/14 09:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.9	mg/kg	2.0	0.64	1	09/26/14 08:30	09/26/14 15:59	7440-38-2	
Barium	56.0	mg/kg	1.0	0.24	2	09/26/14 08:30	09/29/14 18:22	7440-39-3	
Cadmium	<0.066	mg/kg	0.50	0.066	1	09/26/14 08:30	09/26/14 15:59	7440-43-9	
Chromium	18.1	mg/kg	0.50	0.19	1	09/26/14 08:30	09/26/14 15:59	7440-47-3	
Lead	4.4	mg/kg	1.0	0.43	1	09/26/14 08:30	09/26/14 15:59	7439-92-1	
Selenium	<0.77	mg/kg	2.0	0.77	1	09/26/14 08:30	09/26/14 15:59	7782-49-2	
Silver	<0.28	mg/kg	1.0	0.28	1	09/26/14 08:30	09/26/14 15:59	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0055J	mg/kg	0.0062	0.0031	1	10/01/14 11:50	10/02/14 11:59	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 11:01	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 11:01	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 11:01	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 11:01	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 11:01	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-2 12.5-15 **Lab ID:** 40103985001 **Collected:** 09/18/14 09:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	1634-04-4	W
Methylene Chloride	27.4J	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-09-2	
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 11:01	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	108-88-3	W
Trichloroethene	430	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 11:01	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:01	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	37-152		1	09/25/14 09:20	09/25/14 11:01	1868-53-7	
Toluene-d8 (S)	108	%	38-154		1	09/25/14 09:20	09/25/14 11:01	2037-26-5	
4-Bromofluorobenzene (S)	100	%	39-139		1	09/25/14 09:20	09/25/14 11:01	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-2 2.5-5 **Lab ID:** 40103985002 **Collected:** 09/18/14 10:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.7	mg/kg	1.7	0.55	1	09/26/14 08:30	09/26/14 16:05	7440-38-2	
Barium	100	mg/kg	0.43	0.10	1	09/26/14 08:30	09/26/14 16:05	7440-39-3	
Cadmium	<0.057	mg/kg	0.43	0.057	1	09/26/14 08:30	09/26/14 16:05	7440-43-9	
Chromium	28.8	mg/kg	0.43	0.17	1	09/26/14 08:30	09/26/14 16:05	7440-47-3	
Lead	14.1	mg/kg	0.86	0.37	1	09/26/14 08:30	09/26/14 16:05	7439-92-1	
Selenium	<0.66	mg/kg	1.7	0.66	1	09/26/14 08:30	09/26/14 16:05	7782-49-2	
Silver	<0.24	mg/kg	0.86	0.24	1	09/26/14 08:30	09/26/14 16:05	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.045	mg/kg	0.0058	0.0029	1	10/01/14 11:50	10/02/14 12:02	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 11:22	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 11:22	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 11:22	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 11:22	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 11:22	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-2 2.5-5 **Lab ID:** 40103985002 **Collected:** 09/18/14 10:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 11:22	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 11:22	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:22	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	37-152		1	09/25/14 09:20	09/25/14 11:22	1868-53-7	
Toluene-d8 (S)	106	%	38-154		1	09/25/14 09:20	09/25/14 11:22	2037-26-5	
4-Bromofluorobenzene (S)	97	%	39-139		1	09/25/14 09:20	09/25/14 11:22	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-3 5-7.5 **Lab ID:** 40103985003 **Collected:** 09/18/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.6	mg/kg	2.0	0.62	1	09/26/14 08:30	09/26/14 16:11	7440-38-2	
Barium	38.1	mg/kg	0.49	0.12	1	09/26/14 08:30	09/26/14 16:11	7440-39-3	
Cadmium	<0.065	mg/kg	0.49	0.065	1	09/26/14 08:30	09/26/14 16:11	7440-43-9	
Chromium	16.0	mg/kg	0.49	0.19	1	09/26/14 08:30	09/26/14 16:11	7440-47-3	
Lead	5.5	mg/kg	0.98	0.42	1	09/26/14 08:30	09/26/14 16:11	7439-92-1	
Selenium	<0.75	mg/kg	2.0	0.75	1	09/26/14 08:30	09/26/14 16:11	7782-49-2	
Silver	<0.27	mg/kg	0.98	0.27	1	09/26/14 08:30	09/26/14 16:11	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0096	mg/kg	0.0064	0.0032	1	10/01/14 11:50	10/02/14 12:04	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 11:44	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 11:44	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 11:44	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 11:44	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 11:44	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-3 5-7.5 **Lab ID:** 40103985003 **Collected:** 09/18/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 11:44	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 11:44	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 11:44	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	84	%	37-152		1	09/25/14 09:20	09/25/14 11:44	1868-53-7	
Toluene-d8 (S)	99	%	38-154		1	09/25/14 09:20	09/25/14 11:44	2037-26-5	
4-Bromofluorobenzene (S)	89	%	39-139		1	09/25/14 09:20	09/25/14 11:44	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-3 12.5-15 Lab ID: 40103985004 Collected: 09/18/14 11:00 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	5.8	mg/kg	1.8	0.58	1	09/26/14 08:30	09/26/14 16:14	7440-38-2	
Barium	55.0	mg/kg	2.3	0.54	5	09/26/14 08:30	09/29/14 18:33	7440-39-3	
Cadmium	<0.060	mg/kg	0.46	0.060	1	09/26/14 08:30	09/26/14 16:14	7440-43-9	
Chromium	16.9	mg/kg	0.46	0.18	1	09/26/14 08:30	09/26/14 16:14	7440-47-3	
Lead	3.7	mg/kg	0.91	0.39	1	09/26/14 08:30	09/26/14 16:14	7439-92-1	
Selenium	<0.70	mg/kg	1.8	0.70	1	09/26/14 08:30	09/26/14 16:14	7782-49-2	
Silver	<0.25	mg/kg	0.91	0.25	1	09/26/14 08:30	09/26/14 16:14	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0054J	mg/kg	0.0058	0.0029	1	10/01/14 11:50	10/02/14 12:10	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 12:05	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 12:05	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 12:05	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 12:05	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 12:05	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-3 12.5-15 **Lab ID:** 40103985004 **Collected:** 09/18/14 11:00 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 12:05	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	108-88-3	W
Trichloroethene	522	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 12:05	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:05	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	86	%	37-152		1	09/25/14 09:20	09/25/14 12:05	1868-53-7	
Toluene-d8 (S)	98	%	38-154		1	09/25/14 09:20	09/25/14 12:05	2037-26-5	
4-Bromofluorobenzene (S)	89	%	39-139		1	09/25/14 09:20	09/25/14 12:05	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-1 2.5-5 **Lab ID:** 40103985005 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.2	mg/kg	1.7	0.55	1	09/26/14 08:30	09/26/14 16:16	7440-38-2	
Barium	37.2	mg/kg	0.43	0.10	1	09/26/14 08:30	09/26/14 16:16	7440-39-3	
Cadmium	<0.057	mg/kg	0.43	0.057	1	09/26/14 08:30	09/26/14 16:16	7440-43-9	
Chromium	14.4	mg/kg	0.43	0.17	1	09/26/14 08:30	09/26/14 16:16	7440-47-3	
Lead	4.0	mg/kg	0.87	0.37	1	09/26/14 08:30	09/26/14 16:16	7439-92-1	
Selenium	<0.67	mg/kg	1.7	0.67	1	09/26/14 08:30	09/26/14 16:16	7782-49-2	
Silver	<0.24	mg/kg	0.87	0.24	1	09/26/14 08:30	09/26/14 16:16	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.016	mg/kg	0.0056	0.0028	1	10/01/14 11:50	10/02/14 12:13	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 12:27	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 12:27	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 12:27	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 12:27	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 12:27	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-1 2.5-5 **Lab ID:** 40103985005 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 12:27	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 12:27	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:27	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	91	%	37-152		1	09/25/14 09:20	09/25/14 12:27	1868-53-7	
Toluene-d8 (S)	101	%	38-154		1	09/25/14 09:20	09/25/14 12:27	2037-26-5	
4-Bromofluorobenzene (S)	94	%	39-139		1	09/25/14 09:20	09/25/14 12:27	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-1 7.5-10 **Lab ID:** 40103985006 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.2	mg/kg	1.9	0.61	1	09/26/14 08:30	09/26/14 16:18	7440-38-2	
Barium	55.2	mg/kg	2.4	0.57	5	09/26/14 08:30	09/29/14 18:36	7440-39-3	
Cadmium	<0.063	mg/kg	0.48	0.063	1	09/26/14 08:30	09/26/14 16:18	7440-43-9	
Chromium	18.6	mg/kg	0.48	0.19	1	09/26/14 08:30	09/26/14 16:18	7440-47-3	
Lead	4.3	mg/kg	0.95	0.41	1	09/26/14 08:30	09/26/14 16:18	7439-92-1	
Selenium	<0.74	mg/kg	1.9	0.74	1	09/26/14 08:30	09/26/14 16:18	7782-49-2	
Silver	<0.27	mg/kg	0.95	0.27	1	09/26/14 08:30	09/26/14 16:18	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0072	mg/kg	0.0061	0.0030	1	10/01/14 11:50	10/02/14 12:15	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 12:48	120-82-1	W
1,2,4-Trimethylbenzene	46.6J	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	95-63-6	
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 12:48	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	78-87-5	W
1,3,5-Trimethylbenzene	730	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	108-67-8	
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 12:48	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 12:48	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 12:48	67-66-3	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: GP-11-1 7.5-10 **Lab ID:** 40103985006 **Collected:** 09/17/14 13:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	108-20-3	W
Ethylbenzene	474	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	100-41-4	
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	87-68-3	W
Isopropylbenzene (Cumene)	162	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	98-82-8	
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-09-2	W
Naphthalene	236J	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 12:48	91-20-3	
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 12:48	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	104-51-8	W
n-Propylbenzene	772	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	103-65-1	
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	95-47-6	W
p-Isopropyltoluene	52.1J	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	99-87-6	
sec-Butylbenzene	123	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	135-98-8	
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 12:48	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	101	%	37-152		1	09/25/14 09:20	09/25/14 12:48	1868-53-7	
Toluene-d8 (S)	101	%	38-154		1	09/25/14 09:20	09/25/14 12:48	2037-26-5	
4-Bromofluorobenzene (S)	95	%	39-139		1	09/25/14 09:20	09/25/14 12:48	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-3 Lab ID: 40103942003 Collected: 09/22/14 12:12 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:30	7440-38-2	
Barium, Dissolved	116	ug/L	5.0	1.4	1		10/03/14 15:30	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:30	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:30	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/03/14 15:30	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:30	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:30	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:42	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 21:51	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 21:51	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 21:51	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 21:51	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 21:51	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 21:51	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 21:51	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 21:51	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 21:51	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 21:51	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 21:51	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 21:51	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 21:51	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 21:51	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 21:51	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 21:51	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 21:51	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 21:51	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 21:51	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 21:51	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-3 **Lab ID: 40103942003** Collected: 09/22/14 12:12 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 21:51	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 21:51	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 21:51	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 21:51	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 21:51	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 21:51	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 21:51	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 21:51	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 21:51	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 21:51	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 21:51	79-00-5	
Trichloroethene	64.8	ug/L	1.0	0.33	1		09/29/14 21:51	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 21:51	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 21:51	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 21:51	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	59-130		1		09/29/14 21:51	460-00-4	
Dibromofluoromethane (S)	92	%	70-130		1		09/29/14 21:51	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		09/29/14 21:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-1 **Lab ID: 40103942004** Collected: 09/22/14 13:02 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	8.3J	ug/L	20.0	7.2	1		10/03/14 15:33	7440-38-2	
Barium, Dissolved	108	ug/L	5.0	1.4	1		10/03/14 15:33	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:33	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:33	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/03/14 15:33	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:33	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:33	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:44	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	35.8	ug/L	2.5	1.2	2.5		09/29/14 18:07	71-43-2	
Bromobenzene	<0.58	ug/L	2.5	0.58	2.5		09/29/14 18:07	108-86-1	
Bromochloromethane	<0.85	ug/L	2.5	0.85	2.5		09/29/14 18:07	74-97-5	
Bromodichloromethane	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	75-27-4	
Bromoform	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	75-25-2	
Bromomethane	<6.1	ug/L	12.5	6.1	2.5		09/29/14 18:07	74-83-9	
n-Butylbenzene	6.5	ug/L	2.5	1.2	2.5		09/29/14 18:07	104-51-8	
sec-Butylbenzene	<5.5	ug/L	12.5	5.5	2.5		09/29/14 18:07	135-98-8	
tert-Butylbenzene	<0.45	ug/L	2.5	0.45	2.5		09/29/14 18:07	98-06-6	
Carbon tetrachloride	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	56-23-5	
Chlorobenzene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	108-90-7	
Chloroethane	<0.94	ug/L	2.5	0.94	2.5		09/29/14 18:07	75-00-3	
Chloroform	<6.2	ug/L	12.5	6.2	2.5		09/29/14 18:07	67-66-3	
Chloromethane	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	74-87-3	
2-Chlorotoluene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	95-49-8	
4-Chlorotoluene	<0.53	ug/L	2.5	0.53	2.5		09/29/14 18:07	106-43-4	
1,2-Dibromo-3-chloropropane	<5.4	ug/L	12.5	5.4	2.5		09/29/14 18:07	96-12-8	
Dibromochloromethane	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	124-48-1	
1,2-Dibromoethane (EDB)	<0.41	ug/L	2.5	0.41	2.5		09/29/14 18:07	106-93-4	
Dibromomethane	<1.1	ug/L	2.5	1.1	2.5		09/29/14 18:07	74-95-3	
1,2-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	95-50-1	
1,3-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	541-73-1	
1,4-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	106-46-7	
Dichlorodifluoromethane	<0.51	ug/L	2.5	0.51	2.5		09/29/14 18:07	75-71-8	
1,1-Dichloroethane	<0.60	ug/L	2.5	0.60	2.5		09/29/14 18:07	75-34-3	
1,2-Dichloroethane	<0.42	ug/L	2.5	0.42	2.5		09/29/14 18:07	107-06-2	
1,1-Dichloroethene	1.0J	ug/L	2.5	1.0	2.5		09/29/14 18:07	75-35-4	
cis-1,2-Dichloroethene	137	ug/L	2.5	0.64	2.5		09/29/14 18:07	156-59-2	
trans-1,2-Dichloroethene	1.3J	ug/L	2.5	0.64	2.5		09/29/14 18:07	156-60-5	
1,2-Dichloropropane	<0.58	ug/L	2.5	0.58	2.5		09/29/14 18:07	78-87-5	
1,3-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	142-28-9	
2,2-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	594-20-7	
1,1-Dichloropropene	<1.1	ug/L	2.5	1.1	2.5		09/29/14 18:07	563-58-6	
cis-1,3-Dichloropropene	<1.2	ug/L	2.5	1.2	2.5		09/29/14 18:07	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-1		Lab ID: 40103942004		Collected: 09/22/14 13:02		Received: 09/24/14 08:35		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.57 ug/L		2.5	0.57	2.5		09/29/14 18:07	10061-02-6	
Diisopropyl ether	<1.2 ug/L		2.5	1.2	2.5		09/29/14 18:07	108-20-3	
Ethylbenzene	97.9 ug/L		2.5	1.2	2.5		09/29/14 18:07	100-41-4	
Hexachloro-1,3-butadiene	<5.3 ug/L		12.5	5.3	2.5		09/29/14 18:07	87-68-3	
Isopropylbenzene (Cumene)	11.8 ug/L		2.5	0.36	2.5		09/29/14 18:07	98-82-8	
p-Isopropyltoluene	1.5J ug/L		2.5	1.2	2.5		09/29/14 18:07	99-87-6	
Methylene Chloride	<0.58 ug/L		2.5	0.58	2.5		09/29/14 18:07	75-09-2	
Methyl-tert-butyl ether	<0.44 ug/L		2.5	0.44	2.5		09/29/14 18:07	1634-04-4	
Naphthalene	23.3 ug/L		12.5	6.2	2.5		09/29/14 18:07	91-20-3	
n-Propylbenzene	22.4 ug/L		2.5	1.2	2.5		09/29/14 18:07	103-65-1	
Styrene	<1.2 ug/L		2.5	1.2	2.5		09/29/14 18:07	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45 ug/L		2.5	0.45	2.5		09/29/14 18:07	630-20-6	
1,1,2,2-Tetrachloroethane	<0.62 ug/L		2.5	0.62	2.5		09/29/14 18:07	79-34-5	
Tetrachloroethene	4.0 ug/L		2.5	1.2	2.5		09/29/14 18:07	127-18-4	
Toluene	13.7 ug/L		2.5	1.2	2.5		09/29/14 18:07	108-88-3	
1,2,3-Trichlorobenzene	<5.3 ug/L		12.5	5.3	2.5		09/29/14 18:07	87-61-6	
1,2,4-Trichlorobenzene	<5.5 ug/L		12.5	5.5	2.5		09/29/14 18:07	120-82-1	
1,1,1-Trichloroethane	<1.2 ug/L		2.5	1.2	2.5		09/29/14 18:07	71-55-6	
1,1,2-Trichloroethane	<0.39 ug/L		2.5	0.39	2.5		09/29/14 18:07	79-00-5	
Trichloroethene	130 ug/L		2.5	0.83	2.5		09/29/14 18:07	79-01-6	
Trichlorofluoromethane	<0.43 ug/L		2.5	0.43	2.5		09/29/14 18:07	75-69-4	
1,2,3-Trichloropropane	<1.2 ug/L		2.5	1.2	2.5		09/29/14 18:07	96-18-4	
1,2,4-Trimethylbenzene	3.1 ug/L		2.5	1.2	2.5		09/29/14 18:07	95-63-6	
1,3,5-Trimethylbenzene	23.0 ug/L		2.5	1.2	2.5		09/29/14 18:07	108-67-8	
Vinyl chloride	<0.44 ug/L		2.5	0.44	2.5		09/29/14 18:07	75-01-4	
m&p-Xylene	19.2 ug/L		5.0	2.5	2.5		09/29/14 18:07	179601-23-1	
o-Xylene	<1.2 ug/L		2.5	1.2	2.5		09/29/14 18:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97 %		59-130		2.5		09/29/14 18:07	460-00-4	
Dibromofluoromethane (S)	88 %		70-130		2.5		09/29/14 18:07	1868-53-7	
Toluene-d8 (S)	95 %		70-130		2.5		09/29/14 18:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-2 **Lab ID: 40103942005** Collected: 09/22/14 13:48 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:35	7440-38-2	
Barium, Dissolved	52.1	ug/L	5.0	1.4	1		10/03/14 15:35	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:35	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:35	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/03/14 15:35	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:35	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:35	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:51	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	71-43-2	
Bromobenzene	<2.3	ug/L	10.0	2.3	10		09/29/14 18:30	108-86-1	
Bromochloromethane	<3.4	ug/L	10.0	3.4	10		09/29/14 18:30	74-97-5	
Bromodichloromethane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	75-27-4	
Bromoform	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	75-25-2	
Bromomethane	<24.3	ug/L	50.0	24.3	10		09/29/14 18:30	74-83-9	
n-Butylbenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	104-51-8	
sec-Butylbenzene	<21.9	ug/L	50.0	21.9	10		09/29/14 18:30	135-98-8	
tert-Butylbenzene	<1.8	ug/L	10.0	1.8	10		09/29/14 18:30	98-06-6	
Carbon tetrachloride	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	56-23-5	
Chlorobenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	108-90-7	
Chloroethane	<3.7	ug/L	10.0	3.7	10		09/29/14 18:30	75-00-3	
Chloroform	<25.0	ug/L	50.0	25.0	10		09/29/14 18:30	67-66-3	
Chloromethane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	74-87-3	
2-Chlorotoluene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	95-49-8	
4-Chlorotoluene	<2.1	ug/L	10.0	2.1	10		09/29/14 18:30	106-43-4	
1,2-Dibromo-3-chloropropane	<21.6	ug/L	50.0	21.6	10		09/29/14 18:30	96-12-8	
Dibromochloromethane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	124-48-1	
1,2-Dibromoethane (EDB)	<1.6	ug/L	10.0	1.6	10		09/29/14 18:30	106-93-4	
Dibromomethane	<4.3	ug/L	10.0	4.3	10		09/29/14 18:30	74-95-3	
1,2-Dichlorobenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	95-50-1	
1,3-Dichlorobenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	541-73-1	
1,4-Dichlorobenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	106-46-7	
Dichlorodifluoromethane	<2.0	ug/L	10.0	2.0	10		09/29/14 18:30	75-71-8	
1,1-Dichloroethane	<2.4	ug/L	10.0	2.4	10		09/29/14 18:30	75-34-3	
1,2-Dichloroethane	<1.7	ug/L	10.0	1.7	10		09/29/14 18:30	107-06-2	
1,1-Dichloroethene	<4.1	ug/L	10.0	4.1	10		09/29/14 18:30	75-35-4	
cis-1,2-Dichloroethene	<2.6	ug/L	10.0	2.6	10		09/29/14 18:30	156-59-2	
trans-1,2-Dichloroethene	<2.6	ug/L	10.0	2.6	10		09/29/14 18:30	156-60-5	
1,2-Dichloropropane	<2.3	ug/L	10.0	2.3	10		09/29/14 18:30	78-87-5	
1,3-Dichloropropane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	142-28-9	
2,2-Dichloropropane	<4.8	ug/L	10.0	4.8	10		09/29/14 18:30	594-20-7	
1,1-Dichloropropene	<4.4	ug/L	10.0	4.4	10		09/29/14 18:30	563-58-6	
cis-1,3-Dichloropropene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Sample: TRC-11-2 **Lab ID: 40103942005** Collected: 09/22/14 13:48 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<2.3	ug/L	10.0	2.3	10		09/29/14 18:30	10061-02-6	
Diisopropyl ether	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	108-20-3	
Ethylbenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	100-41-4	
Hexachloro-1,3-butadiene	<21.1	ug/L	50.0	21.1	10		09/29/14 18:30	87-68-3	
Isopropylbenzene (Cumene)	<1.4	ug/L	10.0	1.4	10		09/29/14 18:30	98-82-8	
p-Isopropyltoluene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	99-87-6	
Methylene Chloride	<2.3	ug/L	10.0	2.3	10		09/29/14 18:30	75-09-2	
Methyl-tert-butyl ether	<1.7	ug/L	10.0	1.7	10		09/29/14 18:30	1634-04-4	
Naphthalene	<25.0	ug/L	50.0	25.0	10		09/29/14 18:30	91-20-3	
n-Propylbenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	103-65-1	
Styrene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	100-42-5	
1,1,1,2-Tetrachloroethane	<1.8	ug/L	10.0	1.8	10		09/29/14 18:30	630-20-6	
1,1,2,2-Tetrachloroethane	<2.5	ug/L	10.0	2.5	10		09/29/14 18:30	79-34-5	
Tetrachloroethene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	127-18-4	
Toluene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	108-88-3	
1,2,3-Trichlorobenzene	<21.3	ug/L	50.0	21.3	10		09/29/14 18:30	87-61-6	
1,2,4-Trichlorobenzene	<22.1	ug/L	50.0	22.1	10		09/29/14 18:30	120-82-1	
1,1,1-Trichloroethane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	71-55-6	
1,1,2-Trichloroethane	<1.6	ug/L	10.0	1.6	10		09/29/14 18:30	79-00-5	
Trichloroethene	1030	ug/L	10.0	3.3	10		09/29/14 18:30	79-01-6	
Trichlorofluoromethane	<1.7	ug/L	10.0	1.7	10		09/29/14 18:30	75-69-4	
1,2,3-Trichloropropane	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	96-18-4	
1,2,4-Trimethylbenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	95-63-6	
1,3,5-Trimethylbenzene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	108-67-8	
Vinyl chloride	<1.8	ug/L	10.0	1.8	10		09/29/14 18:30	75-01-4	
m&p-Xylene	<10.0	ug/L	20.0	10.0	10		09/29/14 18:30	179601-23-1	
o-Xylene	<5.0	ug/L	10.0	5.0	10		09/29/14 18:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	59-130		10		09/29/14 18:30	460-00-4	
Dibromofluoromethane (S)	89	%	70-130		10		09/29/14 18:30	1868-53-7	
Toluene-d8 (S)	93	%	70-130		10		09/29/14 18:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103985

QC Batch: ICP/9643 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40103942003, 40103942004, 40103942005

METHOD BLANK: 1057491 Matrix: Water
Associated Lab Samples: 40103942003, 40103942004, 40103942005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/03/14 15:17	
Barium, Dissolved	ug/L	<1.4	5.0	10/03/14 15:17	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/03/14 15:17	
Chromium, Dissolved	ug/L	<2.1	5.0	10/03/14 15:17	
Lead, Dissolved	ug/L	<3.0	7.5	10/03/14 15:17	
Selenium, Dissolved	ug/L	<6.7	20.0	10/03/14 15:17	
Silver, Dissolved	ug/L	<2.7	10.0	10/03/14 15:17	

LABORATORY CONTROL SAMPLE: 1057492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	467	93	80-120	
Barium, Dissolved	ug/L	500	481	96	80-120	
Cadmium, Dissolved	ug/L	500	484	97	80-120	
Chromium, Dissolved	ug/L	500	481	96	80-120	
Lead, Dissolved	ug/L	500	486	97	80-120	
Selenium, Dissolved	ug/L	500	466	93	80-120	
Silver, Dissolved	ug/L	250	233	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1057493 1057494

Parameter	Units	40103942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	484	488	97	98	75-125	1	20
Barium, Dissolved	ug/L	123	500	500	602	602	96	96	75-125	0	20
Cadmium, Dissolved	ug/L	<0.60	500	500	494	494	99	99	75-125	0	20
Chromium, Dissolved	ug/L	<2.1	500	500	475	474	95	95	75-125	0	20
Lead, Dissolved	ug/L	3.4J	500	500	476	479	94	95	75-125	1	20
Selenium, Dissolved	ug/L	<6.7	500	500	490	490	97	98	75-125	0	20
Silver, Dissolved	ug/L	<2.7	250	250	226	226	91	91	75-125	0	20

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

QC Batch:	MERP/4501	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury Dissolved
Associated Lab Samples:	40103942003, 40103942004, 40103942005		

METHOD BLANK: 1052253 Matrix: Water

Associated Lab Samples: 40103942003, 40103942004, 40103942005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	09/29/14 11:02	

LABORATORY CONTROL SAMPLE: 1052254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.4	109	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052255 1052256

Parameter	Units	40103920001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	5.4	5.4	108	108	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

QC Batch:	MERP/4508	Analysis Method:	EPA 7471
QC Batch Method:	EPA 7471	Analysis Description:	7471 Mercury
Associated Lab Samples:	40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006		

METHOD BLANK:	1055074	Matrix:	Solid
Associated Lab Samples:	40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	10/02/14 11:21	

LABORATORY CONTROL SAMPLE:	1055075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.16	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	1055076	1055077

Parameter	Units	40103982004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.0050J	.17	.17	0.17	0.17	99	99	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

QC Batch:	MPRP/10859	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006		

METHOD BLANK:	1051994	Matrix:	Solid
Associated Lab Samples:	40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.64	2.0	09/26/14 15:54	
Barium	mg/kg	<0.12	0.50	09/26/14 15:54	
Cadmium	mg/kg	<0.066	0.50	09/26/14 15:54	
Chromium	mg/kg	<0.19	0.50	09/26/14 15:54	
Lead	mg/kg	<0.43	1.0	09/26/14 15:54	
Selenium	mg/kg	<0.77	2.0	09/26/14 15:54	
Silver	mg/kg	<0.28	1.0	09/26/14 15:54	

LABORATORY CONTROL SAMPLE: 1051995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.2	94	80-120	
Barium	mg/kg	50	49.3	99	80-120	
Cadmium	mg/kg	50	47.5	95	80-120	
Chromium	mg/kg	50	49.0	98	80-120	
Lead	mg/kg	50	48.4	97	80-120	
Selenium	mg/kg	50	46.8	94	80-120	
Silver	mg/kg	25	23.5	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1051996 1051997

Parameter	Units	40103985001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	2.9	50	49.8	47.6	48.5	89	92	75-125	2	20	
Barium	mg/kg	56.0	50	49.8	106	106	101	100	75-125	0	20	
Cadmium	mg/kg	<0.066	50	49.8	46.5	46.5	93	93	75-125	0	20	
Chromium	mg/kg	18.1	50	49.8	64.4	65.2	93	95	75-125	1	20	
Lead	mg/kg	4.4	50	49.8	48.2	48.4	88	88	75-125	0	20	
Selenium	mg/kg	<0.77	50	49.8	43.9	44.1	88	88	75-125	0	20	
Silver	mg/kg	<0.28	25	24.9	23.2	23.3	93	93	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103985

QC Batch: MSV/25893 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006

METHOD BLANK: 1051769 Matrix: Solid
Associated Lab Samples: 40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:35	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:35	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:35	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:35	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:35	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:35	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:35	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:35	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:35	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:35	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:35	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:35	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:35	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:35	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:35	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:35	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:35	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:35	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:35	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:35	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:35	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:35	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:35	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:35	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:35	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:35	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:35	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:35	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:35	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:35	
Chloroform	ug/kg	<46.4	250	09/25/14 09:35	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:35	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:35	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:35	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:35	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:35	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:35	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:35	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:35	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

METHOD BLANK: 1051769

Matrix: Solid

Associated Lab Samples: 40103985001, 40103985002, 40103985003, 40103985004, 40103985005, 40103985006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:35	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:35	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:35	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:35	
Methylene Chloride	ug/kg	20.0J	50.0	09/25/14 09:35	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:35	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:35	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:35	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:35	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:35	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:35	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:35	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:35	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:35	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:35	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:35	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:35	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:35	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:35	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:35	
4-Bromofluorobenzene (S)	%	97	39-139	09/25/14 09:35	
Dibromofluoromethane (S)	%	96	37-152	09/25/14 09:35	
Toluene-d8 (S)	%	109	38-154	09/25/14 09:35	

LABORATORY CONTROL SAMPLE & LCSD: 1051770

1051771

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2520	2480	101	99	70-130	2	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2200	2180	88	87	70-130	1	20	
1,1,2-Trichloroethane	ug/kg	2500	2840	2780	114	111	70-130	2	20	
1,1-Dichloroethane	ug/kg	2500	2600	2500	104	100	70-130	4	20	
1,1-Dichloroethene	ug/kg	2500	2290	2230	92	89	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2250	2310	90	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1960	2050	79	82	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2640	2590	106	104	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	2500	2410	2390	97	96	70-130	1	20	
1,2-Dichloroethane	ug/kg	2500	2620	2560	105	102	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2710	2700	108	108	70-130	0	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2410	98	96	70-130	1	20	
1,4-Dichlorobenzene	ug/kg	2500	2400	2380	96	95	70-130	1	20	
Benzene	ug/kg	2500	2580	2510	103	100	70-130	3	20	
Bromodichloromethane	ug/kg	2500	2390	2340	95	94	70-130	2	20	
Bromoform	ug/kg	2500	1880	1850	75	74	70-130	2	20	
Bromomethane	ug/kg	2500	2940	2900	118	116	34-173	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

LABORATORY CONTROL SAMPLE & LCSD: 1051770			1051771							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2290	2270	92	91	70-130	1	20	
Chlorobenzene	ug/kg	2500	2620	2560	105	102	70-130	2	20	
Chloroethane	ug/kg	2500	4620	4300	185	172	44-173	7	20	L0
Chloroform	ug/kg	2500	2290	2260	92	91	70-130	1	20	
Chloromethane	ug/kg	2500	2230	2100	89	84	43-130	6	20	
cis-1,2-Dichloroethene	ug/kg	2500	2430	2400	97	96	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2270	2260	91	90	70-130	0	20	
Dibromochloromethane	ug/kg	2500	2260	2200	90	88	70-130	3	20	
Dichlorodifluoromethane	ug/kg	2500	1480	1340	59	54	10-150	10	20	
Ethylbenzene	ug/kg	2500	2790	2730	111	109	70-130	2	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2690	2620	107	105	70-130	3	20	
m&p-Xylene	ug/kg	5000	5360	5180	107	104	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2540	2450	102	98	65-131	4	20	
Methylene Chloride	ug/kg	2500	2530	2450	101	98	64-143	3	20	
o-Xylene	ug/kg	2500	2710	2630	108	105	70-130	3	20	
Styrene	ug/kg	2500	2440	2390	97	96	70-130	2	20	
Tetrachloroethene	ug/kg	2500	2340	2270	94	91	70-130	3	20	
Toluene	ug/kg	2500	2760	2690	110	107	70-130	3	20	
trans-1,2-Dichloroethene	ug/kg	2500	2430	2350	97	94	70-130	4	20	
trans-1,3-Dichloropropene	ug/kg	2500	2360	2330	94	93	70-130	1	20	
Trichloroethene	ug/kg	2500	2750	2710	110	109	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2360	2250	95	90	50-150	5	20	
Vinyl chloride	ug/kg	2500	2490	2380	100	95	57-130	4	20	
4-Bromofluorobenzene (S)	%				100	101	39-139			
Dibromofluoromethane (S)	%				106	105	37-152			
Toluene-d8 (S)	%				112	111	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103985

QC Batch: MSV/25890 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40103942003, 40103942004, 40103942005

METHOD BLANK: 1051271 Matrix: Water
Associated Lab Samples: 40103942003, 40103942004, 40103942005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 14:00	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 14:00	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 14:00	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 14:00	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 14:00	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 14:00	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 14:00	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 14:00	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 14:00	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 14:00	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 14:00	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 14:00	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 14:00	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 14:00	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 14:00	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 14:00	
Benzene	ug/L	<0.50	1.0	09/29/14 14:00	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 14:00	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 14:00	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Bromoform	ug/L	<0.50	1.0	09/29/14 14:00	
Bromomethane	ug/L	<2.4	5.0	09/29/14 14:00	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 14:00	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Chloroethane	ug/L	<0.37	1.0	09/29/14 14:00	
Chloroform	ug/L	<2.5	5.0	09/29/14 14:00	
Chloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 14:00	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 14:00	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 14:00	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

METHOD BLANK: 1051271

Matrix: Water

Associated Lab Samples: 40103942003, 40103942004, 40103942005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 14:00	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 14:00	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 14:00	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 14:00	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 14:00	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Naphthalene	ug/L	<2.5	5.0	09/29/14 14:00	
o-Xylene	ug/L	<0.50	1.0	09/29/14 14:00	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 14:00	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 14:00	
Styrene	ug/L	<0.50	1.0	09/29/14 14:00	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 14:00	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 14:00	
Toluene	ug/L	<0.50	1.0	09/29/14 14:00	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 14:00	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 14:00	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 14:00	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 14:00	
4-Bromofluorobenzene (S)	%	92	59-130	09/29/14 14:00	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 14:00	
Toluene-d8 (S)	%	95	70-130	09/29/14 14:00	

LABORATORY CONTROL SAMPLE & LCSD: 1051272

1051273

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.8	56.3	118	113	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	50	45.4	44.8	91	90	70-130	1	20	
1,1,2-Trichloroethane	ug/L	50	53.8	53.8	108	108	70-130	0	20	
1,1-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,1-Dichloroethene	ug/L	50	60.2	58.0	120	116	70-132	4	20	
1,2,4-Trichlorobenzene	ug/L	50	53.6	52.2	107	104	70-130	3	20	
1,2-Dibromo-3-chloropropane	ug/L	50	40.9	40.4	82	81	50-150	1	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	52.4	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.0	51.0	104	102	70-130	2	20	
1,2-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,2-Dichloropropane	ug/L	50	59.8	57.8	120	116	70-130	3	20	
1,3-Dichlorobenzene	ug/L	50	51.6	50.4	103	101	70-130	2	20	
1,4-Dichlorobenzene	ug/L	50	51.5	50.3	103	101	70-130	2	20	
Benzene	ug/L	50	55.3	53.1	111	106	70-130	4	20	
Bromodichloromethane	ug/L	50	60.4	58.8	121	118	70-130	3	20	
Bromoform	ug/L	50	56.6	54.7	113	109	70-130	3	20	
Bromomethane	ug/L	50	50.3	56.0	101	112	34-157	11	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

LABORATORY CONTROL SAMPLE & LCSD: 1051272			1051273							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	58.4	56.5	117	113	70-132	3	20	
Chlorobenzene	ug/L	50	53.4	52.2	107	104	70-130	2	20	
Chloroethane	ug/L	50	51.6	50.4	103	101	60-143	2	20	
Chloroform	ug/L	50	53.5	51.5	107	103	70-130	4	20	
Chloromethane	ug/L	50	56.8	55.7	114	111	43-148	2	20	
cis-1,2-Dichloroethene	ug/L	50	54.3	52.8	109	106	51-133	3	20	
cis-1,3-Dichloropropene	ug/L	50	53.0	51.5	106	103	70-130	3	20	
Dibromochloromethane	ug/L	50	58.9	57.0	118	114	70-130	3	20	
Dichlorodifluoromethane	ug/L	50	73.6	71.6	147	143	10-174	3	20	
Ethylbenzene	ug/L	50	56.8	55.3	114	111	70-130	3	20	
Isopropylbenzene (Cumene)	ug/L	50	53.0	51.5	106	103	70-136	3	20	
m&p-Xylene	ug/L	100	113	109	113	109	70-131	3	20	
Methyl-tert-butyl ether	ug/L	50	50.7	49.4	101	99	54-139	3	20	
Methylene Chloride	ug/L	50	53.5	51.8	107	104	70-130	3	20	
o-Xylene	ug/L	50	56.6	55.1	113	110	70-130	3	20	
Styrene	ug/L	50	51.7	49.8	103	100	70-130	4	20	
Tetrachloroethene	ug/L	50	63.9	63.1	128	126	70-130	1	20	
Toluene	ug/L	50	54.4	52.4	109	105	70-130	4	20	
trans-1,2-Dichloroethene	ug/L	50	56.6	54.7	113	109	70-130	4	20	
trans-1,3-Dichloropropene	ug/L	50	48.8	48.1	98	96	70-130	2	20	
Trichloroethene	ug/L	50	60.6	58.6	121	117	70-130	3	20	
Trichlorofluoromethane	ug/L	50	63.8	61.3	128	123	50-150	4	20	
Vinyl chloride	ug/L	50	60.9	58.6	122	117	59-157	4	20	
4-Bromofluorobenzene (S)	%				101	102	59-130			
Dibromofluoromethane (S)	%				93	93	70-130			
Toluene-d8 (S)	%				94	94	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711			1053712									
Parameter	Units	40104015002	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,1,1-Trichloroethane	ug/L	<0.50	50	50	56.5	55.8	113	112	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	45.1	45.3	90	91	70-130	0	20	
1,1,2-Trichloroethane	ug/L	<0.16	50	50	54.4	53.8	109	108	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	50.1	50.1	100	100	70-130	0	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	57.6	58.1	115	116	70-138	1	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	53.4	53.8	107	108	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	41.9	42.6	84	85	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	50	53.0	52.5	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.7	51.3	101	103	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	50.3	50.5	101	101	70-130	1	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	58.1	57.9	116	116	70-130	0	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.0	50.0	100	100	70-130	0	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	50.6	50.7	101	101	70-130	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103985

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711 1053712											
Parameter	Units	40104015002		MS	MSD	MS		MSD	% Rec	Max	
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD
Benzene	ug/L	<0.50	50	50	50	52.7	52.6	105	105	70-130	0
Bromodichloromethane	ug/L	<0.50	50	50	50	59.0	58.6	118	117	70-130	1
Bromoform	ug/L	<0.50	50	50	50	55.7	55.7	111	111	70-130	0
Bromomethane	ug/L	<2.4	50	50	50	58.8	59.6	118	119	34-159	1
Carbon tetrachloride	ug/L	<0.50	50	50	50	56.4	56.2	113	112	70-132	0
Chlorobenzene	ug/L	<0.50	50	50	50	52.7	51.8	105	104	70-130	2
Chloroethane	ug/L	<0.37	50	50	50	49.3	49.2	99	98	60-143	0
Chloroform	ug/L	<2.5	50	50	50	51.6	50.9	103	102	70-130	1
Chloromethane	ug/L	<0.50	50	50	50	54.2	53.9	108	108	43-149	1
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	50	52.5	51.9	105	104	48-137	1
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	50	52.6	52.7	105	105	70-130	0
Dibromochloromethane	ug/L	<0.50	50	50	50	58.3	57.2	117	114	70-130	2
Dichlorodifluoromethane	ug/L	<0.20	50	50	50	68.7	65.7	137	131	10-174	4
Ethylbenzene	ug/L	<0.50	50	50	50	55.6	55.1	111	110	70-130	1
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	50	52.0	51.7	104	103	70-136	1
m&p-Xylene	ug/L	<1.0	100	100	100	111	109	111	109	70-135	1
Methyl-tert-butyl ether	ug/L	<0.17	50	50	50	49.8	50.3	100	101	54-139	1
Methylene Chloride	ug/L	<0.23	50	50	50	51.5	51.7	103	103	70-133	0
o-Xylene	ug/L	<0.50	50	50	50	55.9	55.3	112	111	70-130	1
Styrene	ug/L	<0.50	50	50	50	50.4	48.8	101	98	70-130	3
Tetrachloroethene	ug/L	<0.50	50	50	50	64.7	63.1	129	126	70-130	3
Toluene	ug/L	<0.50	50	50	50	53.2	52.9	106	106	70-130	1
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	50	54.9	53.8	110	108	70-130	2
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	50	49.6	48.8	99	98	70-130	2
Trichloroethene	ug/L	2.3	50	50	50	61.1	60.2	118	116	70-130	2
Trichlorofluoromethane	ug/L	<0.17	50	50	50	61.0	60.1	122	120	50-150	1
Vinyl chloride	ug/L	<0.18	50	50	50	57.1	57.1	114	114	59-158	0
4-Bromofluorobenzene (S)	%							102	101	59-130	
Dibromofluoromethane (S)	%							91	92	70-130	
Toluene-d8 (S)	%							94	93	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

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

QUALIFIERS

Project: 223432 WINNECONNE

Pace Project No.: 40103985

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: MSV/25894

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

W Non-detect results are reported on a wet weight basis.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 223432 WINNECONNE

Pace Project No.: 40103985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40103985001	GP-11-2 12.5-15	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103985002	GP-11-2 2.5-5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103985003	GP-11-3 5-7.5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103985004	GP-11-3 12.5-15	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103985005	GP-11-1 2.5-5	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103985006	GP-11-1 7.5-10	EPA 3050	MPRP/10859	EPA 6010	ICP/9604
40103942003	TRC-11-3	EPA 6010	ICP/9643		
40103942004	TRC-11-1	EPA 6010	ICP/9643		
40103942005	TRC-11-2	EPA 6010	ICP/9643		
40103942003	TRC-11-3	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103942004	TRC-11-1	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103942005	TRC-11-2	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103985001	GP-11-2 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985002	GP-11-2 2.5-5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985003	GP-11-3 5-7.5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985004	GP-11-3 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985005	GP-11-1 2.5-5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985006	GP-11-1 7.5-10	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103985001	GP-11-2 12.5-15	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103985002	GP-11-2 2.5-5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103985003	GP-11-3 5-7.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103985004	GP-11-3 12.5-15	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103985005	GP-11-1 2.5-5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103985006	GP-11-1 7.5-10	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103942003	TRC-11-3	EPA 8260	MSV/25890		
40103942004	TRC-11-1	EPA 8260	MSV/25890		
40103942005	TRC-11-2	EPA 8260	MSV/25890		

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of

MN: 612-607-1700 WI: 920-469-2436

Page 44 of 47



www.paceanals.com

QNS

40103985

CHAIN OF CUSTODY

A=Name B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H= Sodium Bisulfate Solution I= Sodium Thiosulfate J= Other

FILTERED?
(YES/NO)
PRESERVATION
(CODE)

V/I/N
Pick
Letter

Quote #:
Mail To Contact: Dennis Siebert
Mail To Company: TREC
Mail To Address: UTA EMAIL
Invoice To Contact: Accts Payable
Invoice To Company: TREC
Invoice To Address:

Company Name: TREC
Branch/Location: Madison
Project Contact: Dennis Siebert
Phone: 608-826-3659
Project Number: 223 432
Project Name: Winecone
Project State: WI
Sampled By (Print): Dennis Siebert
Sampled By (Sign): Dennis Siebert
PO #: Regulatory Program:

Data Package Options

(billable)
☐ EPA Level III
☐ EPA Level IV

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

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

PAGE LAB

CLIENT FIELD ID

DATE

TIME

Analyses Requested

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

001 GP-1-2-12.5-15 9/18 9:45 S
002 GP-1-2-2.5-5 10:00 S
003 GP-9-3/TW 9-3 9/17 3:30 W
004 GP-1-3-5-7.5 9/18 11:00 S
017 GP-1-3-12.5-15 11:00 S
018 GP-12-1 2.5-5 12:30 S
019 GP-12-1 12.5-15 12:30 S
020 GP-12-2-5-7.5 1:45 S
021 GP-12-2-12.5-15 1:45 S
022 GP-12-3-10-12.5 3:30 S
023 GP-12-3-17.5-20 3:30 S

DATE

TIME

RCRA 8 metals
VOCs
PAH
GRO
DRO
RCRA 8 metals
VOCs

CLIENT COMMENTS (Lab Use Only)
Profile #

PAGE Project No.

40103985

Receipt Temp = 19.1 °C

Sample Receipt pH

Cooler Custody Seal

Present / Not Present

Intact / Not Intact

Version 6.0 08/14/06

C019e(27Jun2006)

ORIGINAL

Jacki Johnson - Fwd: Winneconne analytical samples from TRC

40103985

From: Tod Noltemeyer
To: Hamilton, Abigail; Johnson, Jacki; WI Sample Receiving
Date: 9/24/2014 10:47 AM
Subject: Fwd: Winneconne analytical samples from TRC

Per below, for TRC Winneconne project coming in to GB this morning put the samples in five batches: GP5, GP8, GP9, GP11, GP12 I think are the numbers. They are not on separate COCs, but they need those different GP sample sites in different workorders.

Thanks, Tod

Project Manager
 Pace Analytical - WI
 (608) 232-3300

Tod.Noltemeyer@pacelabs.com

GP-11

>>> "Siewert, Dennis" <DSiewert@trcsolutions.com> 9/24/2014 10:10 AM >>>

Tod,

At some point, I believe that we will need to provide separate analytical data to the owners of each of the 5 sites that we investigated, including soils and groundwater results. Can we get an output from you which would include 5 separate sub reports for the 5 sites? The reason we would like to do this is to offer each site owner confidential results for their respective site.

Please let me know if this is something you could help us out with.

Thanks,

Dennis

Dennis S. Siewert
 Senior Designer
 (Mechanical & Electrical)



708 Heartland Trail, Suite 3000 Madison, WI
 T: 608.826.3659 | F: 608.826.3941 | C: 608.235.7084

Follow us on [LinkedIn](#) or [Twitter](#) | www.trcsolutions.com

This email has been scanned by the Symantec Email Security.cloud service.
 For more information please visit <http://www.symanteccloud.com>

Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: TRC

Project #:

WO#: 40103985

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Waltco
Tracking #: 640060-1/2/13



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/AType of Ice: ☒ Blue Dry None☒ Samples on ice, cooling process has begunCooler Temperature: Uncorr: 20.1 / Corr:Biological Tissue is Frozen: ☐ yesTemp Blank Present: ☐ yes ☒ no☐ no

Person examining contents:

Date: 9/24/14Initials: RMS

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: <u>9/24/14</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>ORD hold up 9/27</u> <u>RMS 9/24/14</u>
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. <u>times on VOA's different for 007, 8, 9, 12, 15, 30</u> <u>label washed off VOA 008</u> , see comments <u>RMS 9/24/14</u>
- Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☒ Yes ☐ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO ₃ , H ₂ SO ₄ ≤ 2, NaOH+ZnAct ≥ 9, NaOH ≥ 12)	☒ Yes ☐ No ☐ N/A	☒ HNO ₃ ☐ H ₂ SO ₄ ☐ NaOH ☐ NaOH + ZnAct
Exceptions: ☒ VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☒ Yes ☐ No	Initial when completed: <u>RMS</u> 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): <u>327</u>		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted:

Date/Time:

Comments/ Resolution: 013 VOA and GRO ID is "GP 11-2 12.5-15", no sample times 001-006 VOA, 010, 011, 16-25
17 28, 29, 31-36 VOA, no sample times on 40x soils except 5, 6, 13, 14 RMS 9/24/14

Project Manager Review:

JI for TN

Date:

9/24/14

October 08, 2014

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

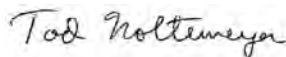
RE: Project: 223432 WINNECONNE Site 12
Pace Project No.: 40103988

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2014. 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,



Tod Noltemeyer
tod.noltemeyer@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

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

New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40103988001	GP-12-1 2.5-5	Solid	09/18/14 12:30	09/24/14 08:35
40103988002	GP-12-1 12.5-15	Solid	09/18/14 12:30	09/24/14 08:35
40103988003	GP-12-2 5-7.5	Solid	09/18/14 13:45	09/24/14 08:35
40103988004	GP-12-2 12.5-15	Solid	09/18/14 13:45	09/24/14 08:35
40103988005	GP-12-3 10-12.5	Solid	09/18/14 15:30	09/24/14 08:35
40103988006	GP-12-3 17.5-20	Solid	09/18/14 15:30	09/24/14 08:35
40103942001	TRC-12-2	Water	09/22/14 10:32	09/24/14 08:35
40103942002	TRC-12-1	Water	09/22/14 11:15	09/24/14 08:35
40103942007	TRC-12-3	Water	09/22/14 15:48	09/24/14 08:35

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40103988001	GP-12-1 2.5-5	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103988002	GP-12-1 12.5-15	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103988003	GP-12-2 5-7.5	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103988004	GP-12-2 12.5-15	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103988005	GP-12-3 10-12.5	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103988006	GP-12-3 17.5-20	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	1	PASI-G
		EPA 6010	DLB	7	PASI-G
		EPA 7471	CMS	1	PASI-G
		EPA 8260	SMT	64	PASI-G
40103942001	TRC-12-2	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G
40103942002	TRC-12-1	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G
40103942007	TRC-12-3	EPA 6010	DLB	7	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	CMS	1	PASI-G
		EPA 8260	HNW	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
40103988001	GP-12-1 2.5-5					
EPA 6010	Arsenic	3.0	mg/kg	2.0	09/30/14 19:34	
EPA 6010	Barium	50.6	mg/kg	0.99	10/01/14 12:16	
EPA 6010	Chromium	18.9	mg/kg	0.50	09/30/14 19:34	
EPA 6010	Lead	4.7	mg/kg	0.99	09/30/14 19:34	
EPA 7471	Mercury	0.0079	mg/kg	0.0052	10/02/14 12:17	
40103988002	GP-12-1 12.5-15					
WI MOD DRO	Diesel Range Organics	0.79J	mg/kg	1.8	09/29/14 11:52	
EPA 6010	Arsenic	4.8	mg/kg	1.9	09/30/14 19:40	
EPA 6010	Barium	63.5	mg/kg	0.94	10/01/14 12:23	
EPA 6010	Chromium	16.2	mg/kg	0.47	09/30/14 19:40	
EPA 6010	Lead	4.4	mg/kg	0.94	09/30/14 19:40	
EPA 7471	Mercury	0.0065	mg/kg	0.0059	10/02/14 12:19	
EPA 8260	Trichloroethene	191	ug/kg	60.0	09/25/14 16:23	
40103988003	GP-12-2 5-7.5					
WI MOD DRO	Diesel Range Organics	0.80J	mg/kg	1.9	09/29/14 11:15	
EPA 6010	Arsenic	3.1	mg/kg	1.9	09/30/14 19:43	
EPA 6010	Barium	53.2	mg/kg	0.95	10/01/14 12:25	
EPA 6010	Chromium	14.6	mg/kg	0.47	09/30/14 19:43	
EPA 6010	Lead	3.9	mg/kg	0.95	09/30/14 19:43	
EPA 7471	Mercury	0.0061	mg/kg	0.0056	10/02/14 12:22	
40103988004	GP-12-2 12.5-15					
WI MOD DRO	Diesel Range Organics	1.0J	mg/kg	1.9	09/29/14 11:24	
EPA 6010	Arsenic	2.7	mg/kg	1.8	09/30/14 19:45	
EPA 6010	Barium	52.0	mg/kg	0.90	10/01/14 12:27	
EPA 6010	Chromium	17.6	mg/kg	0.45	09/30/14 19:45	
EPA 6010	Lead	4.2	mg/kg	0.90	09/30/14 19:45	
EPA 7471	Mercury	0.0049J	mg/kg	0.0057	10/02/14 12:24	
40103988005	GP-12-3 10-12.5					
WI MOD DRO	Diesel Range Organics	0.83J	mg/kg	1.9	09/29/14 14:57	
WI MOD GRO	Gasoline Range Organics	4.0J	mg/kg	5.0	10/01/14 19:40	
EPA 6010	Arsenic	3.8	mg/kg	1.9	09/30/14 19:47	
EPA 6010	Barium	54.0	mg/kg	0.93	10/01/14 12:29	
EPA 6010	Chromium	14.3	mg/kg	0.47	09/30/14 19:47	
EPA 6010	Lead	4.6	mg/kg	0.93	09/30/14 19:47	
EPA 7471	Mercury	0.0039J	mg/kg	0.0063	10/02/14 12:27	
EPA 8260	Trichloroethene	8360	ug/kg	240	09/25/14 17:48	
40103988006	GP-12-3 17.5-20					
WI MOD DRO	Diesel Range Organics	1.1J	mg/kg	2.0	09/29/14 15:07	
WI MOD GRO	Gasoline Range Organics	20.5	mg/kg	5.0	10/01/14 20:05	
EPA 6010	Arsenic	3.3	mg/kg	1.9	09/30/14 19:49	
EPA 6010	Barium	44.9	mg/kg	0.96	10/01/14 12:32	
EPA 6010	Chromium	12.2	mg/kg	0.48	09/30/14 19:49	
EPA 6010	Lead	3.6	mg/kg	0.96	09/30/14 19:49	
EPA 7471	Mercury	0.0045J	mg/kg	0.0066	10/03/14 13:52	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40103988006	GP-12-3 17.5-20					
EPA 8260	Trichloroethene	61300	ug/kg	1200	09/26/14 23:10	
40103942001	TRC-12-2					
EPA 6010	Barium, Dissolved	123	ug/L	5.0	10/03/14 15:22	
EPA 6010	Lead, Dissolved	3.4J	ug/L	7.5	10/03/14 15:22	
40103942002	TRC-12-1					
EPA 6010	Barium, Dissolved	82.2	ug/L	5.0	10/03/14 15:28	
EPA 6010	Cadmium, Dissolved	0.63J	ug/L	5.0	10/03/14 15:28	
EPA 8260	cis-1,2-Dichloroethene	1.1	ug/L	1.0	09/29/14 16:15	
EPA 8260	trans-1,2-Dichloroethene	2.5	ug/L	1.0	09/29/14 16:15	
EPA 8260	Trichloroethene	127	ug/L	1.0	09/29/14 16:15	
40103942007	TRC-12-3					
EPA 6010	Barium, Dissolved	41.1	ug/L	5.0	10/03/14 15:44	
EPA 6010	Lead, Dissolved	3.1J	ug/L	7.5	10/03/14 15:44	
EPA 8260	cis-1,2-Dichloroethene	27.0J	ug/L	100	09/29/14 18:52	
EPA 8260	Trichloroethene	19600	ug/L	100	09/29/14 18:52	

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: WI MOD DRO

Description: WIDRO GCS

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: WI MOD GRO

Description: WIGRO GCV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with TPH GRO/PVOC WI ext. with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 6010

Description: 6010 MET ICP

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 7471

Description: 7471 Mercury

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

General Information:

6 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

QC Batch: MSV/25909

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- GP-12-3 17.5-20 (Lab ID: 40103988006)
 - 4-Bromofluorobenzene (S)
 - Dibromofluoromethane (S)
 - Toluene-d8 (S)

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25893

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1051770)
 - Chloroethane

QC Batch: MSV/25909

R1: RPD value was outside control limits.

- LCSD (Lab ID: 1052327)
 - Chloroethane
 - Trichlorofluoromethane

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: TRC - MADISON

Date: October 08, 2014

Matrix Spikes:

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

QC Batch: MSV/25893

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/25909

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Method: EPA 8260

Description: 8260 MSV

Client: TRC - MADISON

Date: October 08, 2014

General Information:

3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-1 2.5-5 **Lab ID:** 40103988001 **Collected:** 09/18/14 12:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	<0.77	mg/kg	1.9	0.77	1	09/25/14 14:08	09/29/14 12:01		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 17:57		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.0	mg/kg	2.0	0.63	1	09/30/14 11:29	09/30/14 19:34	7440-38-2	
Barium	50.6	mg/kg	0.99	0.24	2	09/30/14 11:29	10/01/14 12:16	7440-39-3	
Cadmium	<0.066	mg/kg	0.50	0.066	1	09/30/14 11:29	09/30/14 19:34	7440-43-9	
Chromium	18.9	mg/kg	0.50	0.19	1	09/30/14 11:29	09/30/14 19:34	7440-47-3	
Lead	4.7	mg/kg	0.99	0.43	1	09/30/14 11:29	09/30/14 19:34	7439-92-1	
Selenium	<0.77	mg/kg	2.0	0.77	1	09/30/14 11:29	09/30/14 19:34	7782-49-2	
Silver	<0.28	mg/kg	0.99	0.28	1	09/30/14 11:29	09/30/14 19:34	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0079	mg/kg	0.0052	0.0026	1	10/01/14 11:50	10/02/14 12:17	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 16:01	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 16:01	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-1 2.5-5 **Lab ID:** 40103988001 **Collected:** 09/18/14 12:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 16:01	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 16:01	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 16:01	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 16:01	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 16:01	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:01	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	93 %		37-152		1	09/25/14 09:20	09/25/14 16:01	1868-53-7	
Toluene-d8 (S)	105 %		38-154		1	09/25/14 09:20	09/25/14 16:01	2037-26-5	
4-Bromofluorobenzene (S)	95 %		39-139		1	09/25/14 09:20	09/25/14 16:01	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-1 12.5-15 **Lab ID:** 40103988002 **Collected:** 09/18/14 12:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	0.79J	mg/kg	1.8	0.72	1	09/25/14 14:08	09/29/14 11:52		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 18:23		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	4.8	mg/kg	1.9	0.60	1	09/30/14 11:29	09/30/14 19:40	7440-38-2	
Barium	63.5	mg/kg	0.94	0.23	2	09/30/14 11:29	10/01/14 12:23	7440-39-3	
Cadmium	<0.062	mg/kg	0.47	0.062	1	09/30/14 11:29	09/30/14 19:40	7440-43-9	
Chromium	16.2	mg/kg	0.47	0.18	1	09/30/14 11:29	09/30/14 19:40	7440-47-3	
Lead	4.4	mg/kg	0.94	0.41	1	09/30/14 11:29	09/30/14 19:40	7439-92-1	
Selenium	<0.73	mg/kg	1.9	0.73	1	09/30/14 11:29	09/30/14 19:40	7782-49-2	
Silver	<0.26	mg/kg	0.94	0.26	1	09/30/14 11:29	09/30/14 19:40	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0065	mg/kg	0.0059	0.0029	1	10/01/14 11:50	10/02/14 12:19	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 16:23	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 16:23	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-1 12.5-15 **Lab ID:** 40103988002 **Collected:** 09/18/14 12:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 16:23	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 16:23	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 16:23	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 16:23	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	108-88-3	W
Trichloroethene	191	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	79-01-6	
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 16:23	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:23	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	85 %		37-152		1	09/25/14 09:20	09/25/14 16:23	1868-53-7	
Toluene-d8 (S)	96 %		38-154		1	09/25/14 09:20	09/25/14 16:23	2037-26-5	
4-Bromofluorobenzene (S)	87 %		39-139		1	09/25/14 09:20	09/25/14 16:23	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-2 5-7.5 **Lab ID:** 40103988003 **Collected:** 09/18/14 13:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	0.80J	mg/kg	1.9	0.78	1	09/25/14 14:08	09/29/14 11:15		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 18:48		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.1	mg/kg	1.9	0.60	1	09/30/14 11:29	09/30/14 19:43	7440-38-2	
Barium	53.2	mg/kg	0.95	0.23	2	09/30/14 11:29	10/01/14 12:25	7440-39-3	
Cadmium	<0.063	mg/kg	0.47	0.063	1	09/30/14 11:29	09/30/14 19:43	7440-43-9	
Chromium	14.6	mg/kg	0.47	0.18	1	09/30/14 11:29	09/30/14 19:43	7440-47-3	
Lead	3.9	mg/kg	0.95	0.41	1	09/30/14 11:29	09/30/14 19:43	7439-92-1	
Selenium	<0.73	mg/kg	1.9	0.73	1	09/30/14 11:29	09/30/14 19:43	7782-49-2	
Silver	<0.26	mg/kg	0.95	0.26	1	09/30/14 11:29	09/30/14 19:43	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0061	mg/kg	0.0056	0.0028	1	10/01/14 11:50	10/02/14 12:22	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 16:44	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 16:44	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-2 5-7.5 **Lab ID:** 40103988003 **Collected:** 09/18/14 13:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 16:44	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 16:44	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 16:44	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 16:44	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 16:44	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 16:44	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	37-152		1	09/25/14 09:20	09/25/14 16:44	1868-53-7	
Toluene-d8 (S)	113	%	38-154		1	09/25/14 09:20	09/25/14 16:44	2037-26-5	
4-Bromofluorobenzene (S)	104	%	39-139		1	09/25/14 09:20	09/25/14 16:44	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-2 12.5-15 **Lab ID:** 40103988004 **Collected:** 09/18/14 13:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	1.0J	mg/kg	1.9	0.77	1	09/25/14 14:08	09/29/14 11:24		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	<2.5	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 19:14		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.7	mg/kg	1.8	0.57	1	09/30/14 11:29	09/30/14 19:45	7440-38-2	
Barium	52.0	mg/kg	0.90	0.22	2	09/30/14 11:29	10/01/14 12:27	7440-39-3	
Cadmium	<0.060	mg/kg	0.45	0.060	1	09/30/14 11:29	09/30/14 19:45	7440-43-9	
Chromium	17.6	mg/kg	0.45	0.18	1	09/30/14 11:29	09/30/14 19:45	7440-47-3	
Lead	4.2	mg/kg	0.90	0.39	1	09/30/14 11:29	09/30/14 19:45	7439-92-1	
Selenium	<0.70	mg/kg	1.8	0.70	1	09/30/14 11:29	09/30/14 19:45	7782-49-2	
Silver	<0.25	mg/kg	0.90	0.25	1	09/30/14 11:29	09/30/14 19:45	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0049J	mg/kg	0.0057	0.0028	1	10/01/14 11:50	10/02/14 12:24	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-35-4	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	563-58-6	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	87-61-6	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	96-18-4	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	09/25/14 09:20	09/25/14 17:05	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	95-63-6	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	09/25/14 09:20	09/25/14 17:05	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-2 12.5-15 **Lab ID:** 40103988004 **Collected:** 09/18/14 13:45 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	09/25/14 09:20	09/25/14 17:05	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	09/25/14 09:20	09/25/14 17:05	75-00-3	L3,W
Chloroform	<46.4	ug/kg	250	46.4	1	09/25/14 09:20	09/25/14 17:05	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	74-87-3	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	1634-04-4	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-09-2	W
Naphthalene	<40.0	ug/kg	250	40.0	1	09/25/14 09:20	09/25/14 17:05	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	100-42-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	156-59-2	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	09/25/14 09:20	09/25/14 17:05	179601-23-1	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	09/25/14 09:20	09/25/14 17:05	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	86 %		37-152		1	09/25/14 09:20	09/25/14 17:05	1868-53-7	
Toluene-d8 (S)	98 %		38-154		1	09/25/14 09:20	09/25/14 17:05	2037-26-5	
4-Bromofluorobenzene (S)	89 %		39-139		1	09/25/14 09:20	09/25/14 17:05	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-3 10-12.5 **Lab ID:** 40103988005 **Collected:** 09/18/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	0.83J	mg/kg	1.9	0.76	1	09/25/14 17:18	09/29/14 14:57		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	4.0J	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 19:40		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.8	mg/kg	1.9	0.59	1	09/30/14 11:29	09/30/14 19:47	7440-38-2	
Barium	54.0	mg/kg	0.93	0.22	2	09/30/14 11:29	10/01/14 12:29	7440-39-3	
Cadmium	<0.062	mg/kg	0.47	0.062	1	09/30/14 11:29	09/30/14 19:47	7440-43-9	
Chromium	14.3	mg/kg	0.47	0.18	1	09/30/14 11:29	09/30/14 19:47	7440-47-3	
Lead	4.6	mg/kg	0.93	0.40	1	09/30/14 11:29	09/30/14 19:47	7439-92-1	
Selenium	<0.72	mg/kg	1.9	0.72	1	09/30/14 11:29	09/30/14 19:47	7782-49-2	
Silver	<0.26	mg/kg	0.93	0.26	1	09/30/14 11:29	09/30/14 19:47	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0039J	mg/kg	0.0063	0.0032	1	10/01/14 11:50	10/02/14 12:27	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	630-20-6	W
1,1,1-Trichloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	71-55-6	W
1,1,2,2-Tetrachloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	79-34-5	W
1,1,2-Trichloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	79-00-5	W
1,1-Dichloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	75-34-3	W
1,1-Dichloroethene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	75-35-4	W
1,1-Dichloropropene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	563-58-6	W
1,2,3-Trichlorobenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	87-61-6	W
1,2,3-Trichloropropane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	96-18-4	W
1,2,4-Trichlorobenzene	<190	ug/kg	1000	190	4	09/25/14 09:20	09/25/14 17:48	120-82-1	W
1,2,4-Trimethylbenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	95-63-6	W
1,2-Dibromo-3-chloropropane	<365	ug/kg	1000	365	4	09/25/14 09:20	09/25/14 17:48	96-12-8	W
1,2-Dibromoethane (EDB)	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	106-93-4	W
1,2-Dichlorobenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	95-50-1	W
1,2-Dichloroethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	107-06-2	W
1,2-Dichloropropane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	78-87-5	W
1,3,5-Trimethylbenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	108-67-8	W
1,3-Dichlorobenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	541-73-1	W
1,3-Dichloropropane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	142-28-9	W
1,4-Dichlorobenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	106-46-7	W
2,2-Dichloropropane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	594-20-7	W
2-Chlorotoluene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	95-49-8	W
4-Chlorotoluene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	106-43-4	W
Benzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	71-43-2	W
Bromobenzene	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	108-86-1	W
Bromochloromethane	<100	ug/kg	240	100	4	09/25/14 09:20	09/25/14 17:48	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-3 10-12.5 **Lab ID:** 40103988005 **Collected:** 09/18/14 15:30 **Received:** 09/24/14 08:35 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-27-4	W
Bromoform	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-25-2	W
Bromomethane	<280 ug/kg		1000	280	4	09/25/14 09:20	09/25/14 17:48	74-83-9	W
Carbon tetrachloride	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	56-23-5	W
Chlorobenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	108-90-7	W
Chloroethane	<268 ug/kg		1000	268	4	09/25/14 09:20	09/25/14 17:48	75-00-3	L3,W
Chloroform	<186 ug/kg		1000	186	4	09/25/14 09:20	09/25/14 17:48	67-66-3	W
Chloromethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	74-87-3	W
Dibromochloromethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	124-48-1	W
Dibromomethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	74-95-3	W
Dichlorodifluoromethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-71-8	W
Diisopropyl ether	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	108-20-3	W
Ethylbenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	100-41-4	W
Hexachloro-1,3-butadiene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	87-68-3	W
Isopropylbenzene (Cumene)	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	98-82-8	W
Methyl-tert-butyl ether	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	1634-04-4	W
Methylene Chloride	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-09-2	W
Naphthalene	<160 ug/kg		1000	160	4	09/25/14 09:20	09/25/14 17:48	91-20-3	W
Styrene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	100-42-5	W
Tetrachloroethene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	127-18-4	W
Toluene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	108-88-3	W
Trichloroethene	8360 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	79-01-6	
Trichlorofluoromethane	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-69-4	W
Vinyl chloride	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	75-01-4	W
cis-1,2-Dichloroethene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	156-59-2	W
cis-1,3-Dichloropropene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	10061-01-5	W
m&p-Xylene	<200 ug/kg		480	200	4	09/25/14 09:20	09/25/14 17:48	179601-23-1	W
n-Butylbenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	104-51-8	W
n-Propylbenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	103-65-1	W
o-Xylene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	95-47-6	W
p-Isopropyltoluene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	99-87-6	W
sec-Butylbenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	135-98-8	W
tert-Butylbenzene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	98-06-6	W
trans-1,2-Dichloroethene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	156-60-5	W
trans-1,3-Dichloropropene	<100 ug/kg		240	100	4	09/25/14 09:20	09/25/14 17:48	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	81 %		37-152		4	09/25/14 09:20	09/25/14 17:48	1868-53-7	
Toluene-d8 (S)	93 %		38-154		4	09/25/14 09:20	09/25/14 17:48	2037-26-5	
4-Bromofluorobenzene (S)	83 %		39-139		4	09/25/14 09:20	09/25/14 17:48	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-3 17.5-20 **Lab ID:** 40103988006 Collected: 09/18/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	1.1J	mg/kg	2.0	0.79	1	09/25/14 17:18	09/29/14 15:07		
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Gasoline Range Organics	20.5	mg/kg	5.0	2.5	1	10/01/14 07:28	10/01/14 20:05		
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	3.3	mg/kg	1.9	0.61	1	09/30/14 11:29	09/30/14 19:49	7440-38-2	
Barium	44.9	mg/kg	0.96	0.23	2	09/30/14 11:29	10/01/14 12:32	7440-39-3	
Cadmium	<0.064	mg/kg	0.48	0.064	1	09/30/14 11:29	09/30/14 19:49	7440-43-9	
Chromium	12.2	mg/kg	0.48	0.19	1	09/30/14 11:29	09/30/14 19:49	7440-47-3	
Lead	3.6	mg/kg	0.96	0.41	1	09/30/14 11:29	09/30/14 19:49	7439-92-1	
Selenium	<0.74	mg/kg	1.9	0.74	1	09/30/14 11:29	09/30/14 19:49	7782-49-2	
Silver	<0.27	mg/kg	0.96	0.27	1	09/30/14 11:29	09/30/14 19:49	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.0045J	mg/kg	0.0066	0.0033	1	10/02/14 15:50	10/03/14 13:52	7439-97-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	630-20-6	W
1,1,1-Trichloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	71-55-6	W
1,1,2,2-Tetrachloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	79-34-5	W
1,1,2-Trichloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	79-00-5	W
1,1-Dichloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-34-3	W
1,1-Dichloroethene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-35-4	W
1,1-Dichloropropene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	563-58-6	W
1,2,3-Trichlorobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	87-61-6	W
1,2,3-Trichloropropane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	96-18-4	W
1,2,4-Trichlorobenzene	<951	ug/kg	5000	951	20	09/26/14 08:30	09/26/14 23:10	120-82-1	W
1,2,4-Trimethylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	95-63-6	W
1,2-Dibromo-3-chloropropane	<1820	ug/kg	5000	1820	20	09/26/14 08:30	09/26/14 23:10	96-12-8	W
1,2-Dibromoethane (EDB)	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	106-93-4	W
1,2-Dichlorobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	95-50-1	W
1,2-Dichloroethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	107-06-2	W
1,2-Dichloropropane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	78-87-5	W
1,3,5-Trimethylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	108-67-8	W
1,3-Dichlorobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	541-73-1	W
1,3-Dichloropropane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	142-28-9	W
1,4-Dichlorobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	106-46-7	W
2,2-Dichloropropane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	594-20-7	W
2-Chlorotoluene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	95-49-8	W
4-Chlorotoluene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	106-43-4	W
Benzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	71-43-2	W
Bromobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	108-86-1	W
Bromochloromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: GP-12-3 17.5-20 Lab ID: 40103988006 Collected: 09/18/14 15:30 Received: 09/24/14 08:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Bromodichloromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-27-4	W
Bromoform	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-25-2	W
Bromomethane	<1400	ug/kg	5000	1400	20	09/26/14 08:30	09/26/14 23:10	74-83-9	W
Carbon tetrachloride	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	56-23-5	W
Chlorobenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	108-90-7	W
Chloroethane	<1340	ug/kg	5000	1340	20	09/26/14 08:30	09/26/14 23:10	75-00-3	W
Chloroform	<929	ug/kg	5000	929	20	09/26/14 08:30	09/26/14 23:10	67-66-3	W
Chloromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	74-87-3	W
Dibromochloromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	124-48-1	W
Dibromomethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	74-95-3	W
Dichlorodifluoromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-71-8	W
Diisopropyl ether	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	108-20-3	W
Ethylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	100-41-4	W
Hexachloro-1,3-butadiene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	87-68-3	W
Isopropylbenzene (Cumene)	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	98-82-8	W
Methyl-tert-butyl ether	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	1634-04-4	W
Methylene Chloride	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-09-2	W
Naphthalene	<801	ug/kg	5000	801	20	09/26/14 08:30	09/26/14 23:10	91-20-3	W
Styrene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	100-42-5	W
Tetrachloroethene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	127-18-4	W
Toluene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	108-88-3	W
Trichloroethene	61300	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	79-01-6	
Trichlorofluoromethane	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-69-4	W
Vinyl chloride	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	75-01-4	W
cis-1,2-Dichloroethene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	156-59-2	W
cis-1,3-Dichloropropene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	10061-01-5	W
m&p-Xylene	<1000	ug/kg	2400	1000	20	09/26/14 08:30	09/26/14 23:10	179601-23-1	W
n-Butylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	104-51-8	W
n-Propylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	103-65-1	W
o-Xylene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	95-47-6	W
p-Isopropyltoluene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	99-87-6	W
sec-Butylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	135-98-8	W
tert-Butylbenzene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	98-06-6	W
trans-1,2-Dichloroethene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	156-60-5	W
trans-1,3-Dichloropropene	<500	ug/kg	1200	500	20	09/26/14 08:30	09/26/14 23:10	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	0 %		37-152		20	09/26/14 08:30	09/26/14 23:10	1868-53-7	S4
Toluene-d8 (S)	0 %		38-154		20	09/26/14 08:30	09/26/14 23:10	2037-26-5	S4
4-Bromofluorobenzene (S)	0 %		39-139		20	09/26/14 08:30	09/26/14 23:10	460-00-4	S4

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-2 **Lab ID: 40103942001** Collected: 09/22/14 10:32 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:22	7440-38-2	
Barium, Dissolved	123	ug/L	5.0	1.4	1		10/03/14 15:22	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:22	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:22	7440-47-3	
Lead, Dissolved	3.4J	ug/L	7.5	3.0	1		10/03/14 15:22	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:22	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:22	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:38	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 21:29	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 21:29	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 21:29	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 21:29	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 21:29	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 21:29	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 21:29	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 21:29	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 21:29	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 21:29	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 21:29	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 21:29	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 21:29	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 21:29	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 21:29	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 21:29	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		09/29/14 21:29	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 21:29	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 21:29	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 21:29	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-2 **Lab ID: 40103942001** Collected: 09/22/14 10:32 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 21:29	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 21:29	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 21:29	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 21:29	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 21:29	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 21:29	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 21:29	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 21:29	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 21:29	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 21:29	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 21:29	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		09/29/14 21:29	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 21:29	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 21:29	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 21:29	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 21:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	59-130		1		09/29/14 21:29	460-00-4	
Dibromofluoromethane (S)	92	%	70-130		1		09/29/14 21:29	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		09/29/14 21:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-1 Lab ID: 40103942002 Collected: 09/22/14 11:15 Received: 09/24/14 08:35 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:28	7440-38-2	
Barium, Dissolved	82.2	ug/L	5.0	1.4	1		10/03/14 15:28	7440-39-3	
Cadmium, Dissolved	0.63J	ug/L	5.0	0.60	1		10/03/14 15:28	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:28	7440-47-3	
Lead, Dissolved	<3.0	ug/L	7.5	3.0	1		10/03/14 15:28	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:28	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:28	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:40	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		09/29/14 16:15	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		09/29/14 16:15	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		09/29/14 16:15	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 16:15	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		09/29/14 16:15	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		09/29/14 16:15	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		09/29/14 16:15	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		09/29/14 16:15	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		09/29/14 16:15	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	124-48-1	
1,2-Dibromoethane (EDB)	<0.16	ug/L	1.0	0.16	1		09/29/14 16:15	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		09/29/14 16:15	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		09/29/14 16:15	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		09/29/14 16:15	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		09/29/14 16:15	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		09/29/14 16:15	75-35-4	
cis-1,2-Dichloroethene	1.1	ug/L	1.0	0.26	1		09/29/14 16:15	156-59-2	
trans-1,2-Dichloroethene	2.5	ug/L	1.0	0.26	1		09/29/14 16:15	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		09/29/14 16:15	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		09/29/14 16:15	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		09/29/14 16:15	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-1		Lab ID: 40103942002		Collected: 09/22/14 11:15		Received: 09/24/14 08:35		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		09/29/14 16:15	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		09/29/14 16:15	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		09/29/14 16:15	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		09/29/14 16:15	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		09/29/14 16:15	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		09/29/14 16:15	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		09/29/14 16:15	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		09/29/14 16:15	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		09/29/14 16:15	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		09/29/14 16:15	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	71-55-6	
1,1,2-Trichloroethane	<0.16	ug/L	1.0	0.16	1		09/29/14 16:15	79-00-5	
Trichloroethene	127	ug/L	1.0	0.33	1		09/29/14 16:15	79-01-6	
Trichlorofluoromethane	<0.17	ug/L	1.0	0.17	1		09/29/14 16:15	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		09/29/14 16:15	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		09/29/14 16:15	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		09/29/14 16:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	59-130		1		09/29/14 16:15	460-00-4	
Dibromofluoromethane (S)	89	%	70-130		1		09/29/14 16:15	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		09/29/14 16:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-3 **Lab ID: 40103942007** Collected: 09/22/14 15:48 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Arsenic, Dissolved	<7.2	ug/L	20.0	7.2	1		10/03/14 15:44	7440-38-2	
Barium, Dissolved	41.1	ug/L	5.0	1.4	1		10/03/14 15:44	7440-39-3	
Cadmium, Dissolved	<0.60	ug/L	5.0	0.60	1		10/03/14 15:44	7440-43-9	
Chromium, Dissolved	<2.1	ug/L	5.0	2.1	1		10/03/14 15:44	7440-47-3	
Lead, Dissolved	3.1J	ug/L	7.5	3.0	1		10/03/14 15:44	7439-92-1	
Selenium, Dissolved	<6.7	ug/L	20.0	6.7	1		10/03/14 15:44	7782-49-2	
Silver, Dissolved	<2.7	ug/L	10.0	2.7	1		10/03/14 15:44	7440-22-4	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Mercury, Dissolved	<0.10	ug/L	0.20	0.10	1	09/26/14 10:15	09/29/14 11:56	7439-97-6	
8260 MSV Analytical Method: EPA 8260									
Benzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	71-43-2	
Bromobenzene	<23.0	ug/L	100	23.0	100		09/29/14 18:52	108-86-1	
Bromochloromethane	<34.0	ug/L	100	34.0	100		09/29/14 18:52	74-97-5	
Bromodichloromethane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	75-27-4	
Bromoform	<50.0	ug/L	100	50.0	100		09/29/14 18:52	75-25-2	
Bromomethane	<243	ug/L	500	243	100		09/29/14 18:52	74-83-9	
n-Butylbenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	104-51-8	
sec-Butylbenzene	<219	ug/L	500	219	100		09/29/14 18:52	135-98-8	
tert-Butylbenzene	<18.0	ug/L	100	18.0	100		09/29/14 18:52	98-06-6	
Carbon tetrachloride	<50.0	ug/L	100	50.0	100		09/29/14 18:52	56-23-5	
Chlorobenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	108-90-7	
Chloroethane	<37.5	ug/L	100	37.5	100		09/29/14 18:52	75-00-3	
Chloroform	<250	ug/L	500	250	100		09/29/14 18:52	67-66-3	
Chloromethane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	74-87-3	
2-Chlorotoluene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	95-49-8	
4-Chlorotoluene	<21.4	ug/L	100	21.4	100		09/29/14 18:52	106-43-4	
1,2-Dibromo-3-chloropropane	<216	ug/L	500	216	100		09/29/14 18:52	96-12-8	
Dibromochloromethane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	124-48-1	
1,2-Dibromoethane (EDB)	<16.4	ug/L	100	16.4	100		09/29/14 18:52	106-93-4	
Dibromomethane	<42.7	ug/L	100	42.7	100		09/29/14 18:52	74-95-3	
1,2-Dichlorobenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	95-50-1	
1,3-Dichlorobenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	541-73-1	
1,4-Dichlorobenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	106-46-7	
Dichlorodifluoromethane	<20.3	ug/L	100	20.3	100		09/29/14 18:52	75-71-8	
1,1-Dichloroethane	<24.2	ug/L	100	24.2	100		09/29/14 18:52	75-34-3	
1,2-Dichloroethane	<16.8	ug/L	100	16.8	100		09/29/14 18:52	107-06-2	
1,1-Dichloroethene	<41.0	ug/L	100	41.0	100		09/29/14 18:52	75-35-4	
cis-1,2-Dichloroethene	27.0J	ug/L	100	25.6	100		09/29/14 18:52	156-59-2	
trans-1,2-Dichloroethene	<25.7	ug/L	100	25.7	100		09/29/14 18:52	156-60-5	
1,2-Dichloropropane	<23.3	ug/L	100	23.3	100		09/29/14 18:52	78-87-5	
1,3-Dichloropropane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	142-28-9	
2,2-Dichloropropane	<48.4	ug/L	100	48.4	100		09/29/14 18:52	594-20-7	
1,1-Dichloropropene	<44.1	ug/L	100	44.1	100		09/29/14 18:52	563-58-6	
cis-1,3-Dichloropropene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Sample: TRC-12-3 **Lab ID: 40103942007** Collected: 09/22/14 15:48 Received: 09/24/14 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
trans-1,3-Dichloropropene	<23.0	ug/L	100	23.0	100		09/29/14 18:52	10061-02-6	
Diisopropyl ether	<50.0	ug/L	100	50.0	100		09/29/14 18:52	108-20-3	
Ethylbenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	100-41-4	
Hexachloro-1,3-butadiene	<211	ug/L	500	211	100		09/29/14 18:52	87-68-3	
Isopropylbenzene (Cumene)	<14.3	ug/L	100	14.3	100		09/29/14 18:52	98-82-8	
p-Isopropyltoluene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	99-87-6	
Methylene Chloride	<23.3	ug/L	100	23.3	100		09/29/14 18:52	75-09-2	
Methyl-tert-butyl ether	<17.4	ug/L	100	17.4	100		09/29/14 18:52	1634-04-4	
Naphthalene	<250	ug/L	500	250	100		09/29/14 18:52	91-20-3	
n-Propylbenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	103-65-1	
Styrene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	100-42-5	
1,1,1,2-Tetrachloroethane	<18.1	ug/L	100	18.1	100		09/29/14 18:52	630-20-6	
1,1,2,2-Tetrachloroethane	<24.9	ug/L	100	24.9	100		09/29/14 18:52	79-34-5	
Tetrachloroethene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	127-18-4	
Toluene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	108-88-3	
1,2,3-Trichlorobenzene	<213	ug/L	500	213	100		09/29/14 18:52	87-61-6	
1,2,4-Trichlorobenzene	<221	ug/L	500	221	100		09/29/14 18:52	120-82-1	
1,1,1-Trichloroethane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	71-55-6	
1,1,2-Trichloroethane	<15.5	ug/L	100	15.5	100		09/29/14 18:52	79-00-5	
Trichloroethene	19600	ug/L	100	33.1	100		09/29/14 18:52	79-01-6	
Trichlorofluoromethane	<17.2	ug/L	100	17.2	100		09/29/14 18:52	75-69-4	
1,2,3-Trichloropropane	<50.0	ug/L	100	50.0	100		09/29/14 18:52	96-18-4	
1,2,4-Trimethylbenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	95-63-6	
1,3,5-Trimethylbenzene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	108-67-8	
Vinyl chloride	<17.6	ug/L	100	17.6	100		09/29/14 18:52	75-01-4	
m&p-Xylene	<100	ug/L	200	100	100		09/29/14 18:52	179601-23-1	
o-Xylene	<50.0	ug/L	100	50.0	100		09/29/14 18:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	59-130		100		09/29/14 18:52	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		100		09/29/14 18:52	1868-53-7	
Toluene-d8 (S)	94	%	70-130		100		09/29/14 18:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

QC Batch:	GCV/13273	Analysis Method:	WI MOD GRO
QC Batch Method:	TPH GRO/PVOC WI ext.	Analysis Description:	WIGRO Solid GCV
Associated Lab Samples:	40103988001, 40103988002, 40103988003, 40103988004, 40103988005, 40103988006		

METHOD BLANK:	1054799	Matrix:	Solid
Associated Lab Samples:	40103988001, 40103988002, 40103988003, 40103988004, 40103988005, 40103988006		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	<1.6	5.0	10/01/14 09:37	

LABORATORY CONTROL SAMPLE & LCSD:										
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	mg/kg	10	11.2	11.3	112	113	80-120	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch: ICP/9643 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40103942001, 40103942002, 40103942007

METHOD BLANK: 1057491 Matrix: Water
Associated Lab Samples: 40103942001, 40103942002, 40103942007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<7.2	20.0	10/03/14 15:17	
Barium, Dissolved	ug/L	<1.4	5.0	10/03/14 15:17	
Cadmium, Dissolved	ug/L	<0.60	5.0	10/03/14 15:17	
Chromium, Dissolved	ug/L	<2.1	5.0	10/03/14 15:17	
Lead, Dissolved	ug/L	<3.0	7.5	10/03/14 15:17	
Selenium, Dissolved	ug/L	<6.7	20.0	10/03/14 15:17	
Silver, Dissolved	ug/L	<2.7	10.0	10/03/14 15:17	

LABORATORY CONTROL SAMPLE: 1057492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	467	93	80-120	
Barium, Dissolved	ug/L	500	481	96	80-120	
Cadmium, Dissolved	ug/L	500	484	97	80-120	
Chromium, Dissolved	ug/L	500	481	96	80-120	
Lead, Dissolved	ug/L	500	486	97	80-120	
Selenium, Dissolved	ug/L	500	466	93	80-120	
Silver, Dissolved	ug/L	250	233	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1057493 1057494

Parameter	Units	40103942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Arsenic, Dissolved	ug/L	<7.2	500	500	484	488	97	98	75-125	1	20
Barium, Dissolved	ug/L	123	500	500	602	602	96	96	75-125	0	20
Cadmium, Dissolved	ug/L	<0.60	500	500	494	494	99	99	75-125	0	20
Chromium, Dissolved	ug/L	<2.1	500	500	475	474	95	95	75-125	0	20
Lead, Dissolved	ug/L	3.4J	500	500	476	479	94	95	75-125	1	20
Selenium, Dissolved	ug/L	<6.7	500	500	490	490	97	98	75-125	0	20
Silver, Dissolved	ug/L	<2.7	250	250	226	226	91	91	75-125	0	20

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

QC Batch: MERP/4501 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury Dissolved
Associated Lab Samples: 40103942001, 40103942002, 40103942007

METHOD BLANK: 1052253 Matrix: Water

Associated Lab Samples: 40103942001, 40103942002, 40103942007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	09/29/14 11:02	

LABORATORY CONTROL SAMPLE: 1052254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.4	109	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052255 1052256

Parameter	Units	40103920001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	5.4	5.4	108	108	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

QC Batch: MERP/4508 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005

METHOD BLANK: 1055074 Matrix: Solid
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	10/02/14 11:21	

LABORATORY CONTROL SAMPLE: 1055075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.16	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055076 1055077

Parameter	Units	40103982004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.0050J	.17	.17	0.17	0.17	99	99	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch:	MERP/4512	Analysis Method:	EPA 7471
QC Batch Method:	EPA 7471	Analysis Description:	7471 Mercury
Associated Lab Samples:	40103988006		

METHOD BLANK: 1056421 Matrix: Solid
Associated Lab Samples: 40103988006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	10/03/14 13:48	

LABORATORY CONTROL SAMPLE: 1056422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.19	114	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1056423 1056424

Parameter	Units	40103988006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.0045J	.17	.17	0.19	0.19	112	112	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch: MPRP/10876 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005, 40103988006

METHOD BLANK: 1054275 Matrix: Solid
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005, 40103988006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.64	2.0	09/30/14 19:25	
Barium	mg/kg	<0.12	0.50	09/30/14 19:25	
Cadmium	mg/kg	<0.066	0.50	09/30/14 19:25	
Chromium	mg/kg	<0.19	0.50	09/30/14 19:25	
Lead	mg/kg	<0.43	1.0	09/30/14 19:25	
Selenium	mg/kg	<0.77	2.0	09/30/14 19:25	
Silver	mg/kg	<0.28	1.0	09/30/14 19:25	

LABORATORY CONTROL SAMPLE: 1054276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	46.3	93	80-120	
Barium	mg/kg	50	48.6	97	80-120	
Cadmium	mg/kg	50	48.2	96	80-120	
Chromium	mg/kg	50	47.4	95	80-120	
Lead	mg/kg	50	48.1	96	80-120	
Selenium	mg/kg	50	47.0	94	80-120	
Silver	mg/kg	25	23.6	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1054277 1054278

Parameter	Units	40103988001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	3.0	50	50	48.9	48.2	92	90	75-125	1	20	
Barium	mg/kg	50.6	50	50	106	107	112	112	75-125	0	20	
Cadmium	mg/kg	<0.066	50	50	47.2	46.9	94	94	75-125	1	20	
Chromium	mg/kg	18.9	50	50	64.9	64.1	92	90	75-125	1	20	
Lead	mg/kg	4.7	50	50	49.2	48.5	89	88	75-125	2	20	
Selenium	mg/kg	<0.77	50	50	44.3	43.9	89	88	75-125	1	20	
Silver	mg/kg	<0.28	25	25	23.5	23.2	94	93	75-125	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch: MSV/25893 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005

METHOD BLANK: 1051769 Matrix: Solid
Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/14 09:35	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/14 09:35	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/14 09:35	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/14 09:35	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/14 09:35	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/14 09:35	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/14 09:35	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/14 09:35	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/14 09:35	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/14 09:35	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/14 09:35	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/14 09:35	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/14 09:35	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/14 09:35	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/14 09:35	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/14 09:35	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/14 09:35	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/14 09:35	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/14 09:35	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/14 09:35	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/14 09:35	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/14 09:35	
Benzene	ug/kg	<9.2	20.0	09/25/14 09:35	
Bromobenzene	ug/kg	<20.6	50.0	09/25/14 09:35	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/14 09:35	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/14 09:35	
Bromoform	ug/kg	<19.8	50.0	09/25/14 09:35	
Bromomethane	ug/kg	<69.9	250	09/25/14 09:35	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/14 09:35	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/14 09:35	
Chloroethane	ug/kg	<67.0	250	09/25/14 09:35	
Chloroform	ug/kg	<46.4	250	09/25/14 09:35	
Chloromethane	ug/kg	<20.4	50.0	09/25/14 09:35	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/14 09:35	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/14 09:35	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/14 09:35	
Dibromomethane	ug/kg	<19.3	50.0	09/25/14 09:35	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/14 09:35	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/14 09:35	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/14 09:35	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

METHOD BLANK: 1051769

Matrix: Solid

Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004, 40103988005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/14 09:35	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/14 09:35	
m&p-Xylene	ug/kg	<34.4	100	09/25/14 09:35	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/14 09:35	
Methylene Chloride	ug/kg	20.0J	50.0	09/25/14 09:35	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/14 09:35	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/14 09:35	
Naphthalene	ug/kg	<40.0	250	09/25/14 09:35	
o-Xylene	ug/kg	<14.0	50.0	09/25/14 09:35	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/14 09:35	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/14 09:35	
Styrene	ug/kg	<9.0	50.0	09/25/14 09:35	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/14 09:35	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/14 09:35	
Toluene	ug/kg	<11.2	50.0	09/25/14 09:35	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/14 09:35	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/14 09:35	
Trichloroethene	ug/kg	<23.6	50.0	09/25/14 09:35	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/14 09:35	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/14 09:35	
4-Bromofluorobenzene (S)	%	97	39-139	09/25/14 09:35	
Dibromofluoromethane (S)	%	96	37-152	09/25/14 09:35	
Toluene-d8 (S)	%	109	38-154	09/25/14 09:35	

LABORATORY CONTROL SAMPLE & LCSD: 1051770

1051771

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2520	2480	101	99	70-130	2	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2200	2180	88	87	70-130	1	20	
1,1,2-Trichloroethane	ug/kg	2500	2840	2780	114	111	70-130	2	20	
1,1-Dichloroethane	ug/kg	2500	2600	2500	104	100	70-130	4	20	
1,1-Dichloroethene	ug/kg	2500	2290	2230	92	89	70-130	2	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2250	2310	90	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1960	2050	79	82	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2640	2590	106	104	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	2500	2410	2390	97	96	70-130	1	20	
1,2-Dichloroethane	ug/kg	2500	2620	2560	105	102	70-141	2	20	
1,2-Dichloropropane	ug/kg	2500	2710	2700	108	108	70-130	0	20	
1,3-Dichlorobenzene	ug/kg	2500	2440	2410	98	96	70-130	1	20	
1,4-Dichlorobenzene	ug/kg	2500	2400	2380	96	95	70-130	1	20	
Benzene	ug/kg	2500	2580	2510	103	100	70-130	3	20	
Bromodichloromethane	ug/kg	2500	2390	2340	95	94	70-130	2	20	
Bromoform	ug/kg	2500	1880	1850	75	74	70-130	2	20	
Bromomethane	ug/kg	2500	2940	2900	118	116	34-173	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

LABORATORY CONTROL SAMPLE & LCSD: 1051770			1051771							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2290	2270	92	91	70-130	1	20	
Chlorobenzene	ug/kg	2500	2620	2560	105	102	70-130	2	20	
Chloroethane	ug/kg	2500	4620	4300	185	172	44-173	7	20	L0
Chloroform	ug/kg	2500	2290	2260	92	91	70-130	1	20	
Chloromethane	ug/kg	2500	2230	2100	89	84	43-130	6	20	
cis-1,2-Dichloroethene	ug/kg	2500	2430	2400	97	96	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2270	2260	91	90	70-130	0	20	
Dibromochloromethane	ug/kg	2500	2260	2200	90	88	70-130	3	20	
Dichlorodifluoromethane	ug/kg	2500	1480	1340	59	54	10-150	10	20	
Ethylbenzene	ug/kg	2500	2790	2730	111	109	70-130	2	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2690	2620	107	105	70-130	3	20	
m&p-Xylene	ug/kg	5000	5360	5180	107	104	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2540	2450	102	98	65-131	4	20	
Methylene Chloride	ug/kg	2500	2530	2450	101	98	64-143	3	20	
o-Xylene	ug/kg	2500	2710	2630	108	105	70-130	3	20	
Styrene	ug/kg	2500	2440	2390	97	96	70-130	2	20	
Tetrachloroethene	ug/kg	2500	2340	2270	94	91	70-130	3	20	
Toluene	ug/kg	2500	2760	2690	110	107	70-130	3	20	
trans-1,2-Dichloroethene	ug/kg	2500	2430	2350	97	94	70-130	4	20	
trans-1,3-Dichloropropene	ug/kg	2500	2360	2330	94	93	70-130	1	20	
Trichloroethene	ug/kg	2500	2750	2710	110	109	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2360	2250	95	90	50-150	5	20	
Vinyl chloride	ug/kg	2500	2490	2380	100	95	57-130	4	20	
4-Bromofluorobenzene (S)	%				100	101	39-139			
Dibromofluoromethane (S)	%				106	105	37-152			
Toluene-d8 (S)	%				112	111	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch:	MSV/25909	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	40103988006		

METHOD BLANK: 1052325 Matrix: Solid
Associated Lab Samples: 40103988006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/26/14 14:57	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/26/14 14:57	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/26/14 14:57	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/26/14 14:57	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/26/14 14:57	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/26/14 14:57	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/26/14 14:57	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/26/14 14:57	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/26/14 14:57	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/26/14 14:57	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/26/14 14:57	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/26/14 14:57	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/26/14 14:57	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/26/14 14:57	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/26/14 14:57	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/26/14 14:57	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/26/14 14:57	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/26/14 14:57	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/26/14 14:57	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/26/14 14:57	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/26/14 14:57	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/26/14 14:57	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/26/14 14:57	
Benzene	ug/kg	<9.2	20.0	09/26/14 14:57	
Bromobenzene	ug/kg	<20.6	50.0	09/26/14 14:57	
Bromochloromethane	ug/kg	<21.4	50.0	09/26/14 14:57	
Bromodichloromethane	ug/kg	<9.8	50.0	09/26/14 14:57	
Bromoform	ug/kg	<19.8	50.0	09/26/14 14:57	
Bromomethane	ug/kg	<69.9	250	09/26/14 14:57	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/26/14 14:57	
Chlorobenzene	ug/kg	<14.8	50.0	09/26/14 14:57	
Chloroethane	ug/kg	<67.0	250	09/26/14 14:57	
Chloroform	ug/kg	<46.4	250	09/26/14 14:57	
Chloromethane	ug/kg	<20.4	50.0	09/26/14 14:57	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/26/14 14:57	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/26/14 14:57	
Dibromochloromethane	ug/kg	<17.9	50.0	09/26/14 14:57	
Dibromomethane	ug/kg	<19.3	50.0	09/26/14 14:57	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/26/14 14:57	
Diisopropyl ether	ug/kg	<17.7	50.0	09/26/14 14:57	
Ethylbenzene	ug/kg	<12.4	50.0	09/26/14 14:57	

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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

METHOD BLANK: 1052325

Matrix: Solid

Associated Lab Samples: 40103988006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/26/14 14:57	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/26/14 14:57	
m&p-Xylene	ug/kg	<34.4	100	09/26/14 14:57	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/26/14 14:57	
Methylene Chloride	ug/kg	<16.2	50.0	09/26/14 14:57	
n-Butylbenzene	ug/kg	<10.5	50.0	09/26/14 14:57	
n-Propylbenzene	ug/kg	<11.6	50.0	09/26/14 14:57	
Naphthalene	ug/kg	<40.0	250	09/26/14 14:57	
o-Xylene	ug/kg	<14.0	50.0	09/26/14 14:57	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/26/14 14:57	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/26/14 14:57	
Styrene	ug/kg	<9.0	50.0	09/26/14 14:57	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/26/14 14:57	
Tetrachloroethene	ug/kg	<12.9	50.0	09/26/14 14:57	
Toluene	ug/kg	<11.2	50.0	09/26/14 14:57	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/26/14 14:57	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/26/14 14:57	
Trichloroethene	ug/kg	<23.6	50.0	09/26/14 14:57	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/26/14 14:57	
Vinyl chloride	ug/kg	<21.1	50.0	09/26/14 14:57	
4-Bromofluorobenzene (S)	%	93	39-139	09/26/14 14:57	
Dibromofluoromethane (S)	%	94	37-152	09/26/14 14:57	
Toluene-d8 (S)	%	105	38-154	09/26/14 14:57	

LABORATORY CONTROL SAMPLE & LCSD: 1052326

1052327

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2490	2620	100	105	70-130	5	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2130	2250	85	90	70-130	6	20	
1,1,2-Trichloroethane	ug/kg	2500	2790	2890	112	116	70-130	4	20	
1,1-Dichloroethane	ug/kg	2500	2310	2380	92	95	70-130	3	20	
1,1-Dichloroethene	ug/kg	2500	2000	1830	80	73	70-130	9	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2190	2350	88	94	70-130	7	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1950	2080	78	83	50-150	6	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2600	2690	104	108	70-130	4	20	
1,2-Dichlorobenzene	ug/kg	2500	2390	2500	96	100	70-130	4	20	
1,2-Dichloroethane	ug/kg	2500	2660	2790	106	112	70-141	5	20	
1,2-Dichloropropane	ug/kg	2500	2730	2900	109	116	70-130	6	20	
1,3-Dichlorobenzene	ug/kg	2500	2390	2460	95	99	70-130	3	20	
1,4-Dichlorobenzene	ug/kg	2500	2360	2450	94	98	70-130	4	20	
Benzene	ug/kg	2500	2590	2660	104	106	70-130	3	20	
Bromodichloromethane	ug/kg	2500	2380	2530	95	101	70-130	6	20	
Bromoform	ug/kg	2500	1860	1920	75	77	70-130	3	20	
Bromomethane	ug/kg	2500	2540	2720	102	109	34-173	7	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

LABORATORY CONTROL SAMPLE & LCSD: 1052326			1052327							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/kg	2500	2280	2350	91	94	70-130	3	20	
Chlorobenzene	ug/kg	2500	2580	2670	103	107	70-130	3	20	
Chloroethane	ug/kg	2500	3060	3950	123	158	44-173	25	20	R1
Chloroform	ug/kg	2500	2370	2610	95	104	70-130	9	20	
Chloromethane	ug/kg	2500	1970	2000	79	80	43-130	2	20	
cis-1,2-Dichloroethene	ug/kg	2500	2200	2240	88	90	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2270	2390	91	96	70-130	5	20	
Dibromochloromethane	ug/kg	2500	2230	2370	89	95	70-130	6	20	
Dichlorodifluoromethane	ug/kg	2500	1240	1260	49	50	10-150	2	20	
Ethylbenzene	ug/kg	2500	2730	2860	109	114	70-130	5	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2570	2690	103	108	70-130	4	20	
m&p-Xylene	ug/kg	5000	5160	5320	103	106	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	2500	2220	2320	89	93	65-131	4	20	
Methylene Chloride	ug/kg	2500	2280	2360	91	95	64-143	4	20	
o-Xylene	ug/kg	2500	2600	2720	104	109	70-130	4	20	
Styrene	ug/kg	2500	2390	2490	96	100	70-130	4	20	
Tetrachloroethene	ug/kg	2500	2270	2350	91	94	70-130	4	20	
Toluene	ug/kg	2500	2710	2830	108	113	70-130	4	20	
trans-1,2-Dichloroethene	ug/kg	2500	2130	2220	85	89	70-130	4	20	
trans-1,3-Dichloropropene	ug/kg	2500	2400	2500	96	100	70-130	4	20	
Trichloroethene	ug/kg	2500	2760	2870	110	115	70-130	4	20	
Trichlorofluoromethane	ug/kg	2500	1340	2060	54	82	50-150	42	20	R1
Vinyl chloride	ug/kg	2500	2120	2220	85	89	57-130	5	20	
4-Bromofluorobenzene (S)	%				99	100	39-139			
Dibromofluoromethane (S)	%				104	104	37-152			
Toluene-d8 (S)	%				110	112	38-154			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

QC Batch: MSV/25890 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40103942001, 40103942002, 40103942007

METHOD BLANK: 1051271 Matrix: Water
Associated Lab Samples: 40103942001, 40103942002, 40103942007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	09/29/14 14:00	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	09/29/14 14:00	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	09/29/14 14:00	
1,1,2-Trichloroethane	ug/L	<0.16	1.0	09/29/14 14:00	
1,1-Dichloroethane	ug/L	<0.24	1.0	09/29/14 14:00	
1,1-Dichloroethene	ug/L	<0.41	1.0	09/29/14 14:00	
1,1-Dichloropropene	ug/L	<0.44	1.0	09/29/14 14:00	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	09/29/14 14:00	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	09/29/14 14:00	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	09/29/14 14:00	
1,2-Dibromoethane (EDB)	ug/L	<0.16	1.0	09/29/14 14:00	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,2-Dichloroethane	ug/L	<0.17	1.0	09/29/14 14:00	
1,2-Dichloropropane	ug/L	<0.23	1.0	09/29/14 14:00	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
1,3-Dichloropropane	ug/L	<0.50	1.0	09/29/14 14:00	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
2,2-Dichloropropane	ug/L	<0.48	1.0	09/29/14 14:00	
2-Chlorotoluene	ug/L	<0.50	1.0	09/29/14 14:00	
4-Chlorotoluene	ug/L	<0.21	1.0	09/29/14 14:00	
Benzene	ug/L	<0.50	1.0	09/29/14 14:00	
Bromobenzene	ug/L	<0.23	1.0	09/29/14 14:00	
Bromochloromethane	ug/L	<0.34	1.0	09/29/14 14:00	
Bromodichloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Bromoform	ug/L	<0.50	1.0	09/29/14 14:00	
Bromomethane	ug/L	<2.4	5.0	09/29/14 14:00	
Carbon tetrachloride	ug/L	<0.50	1.0	09/29/14 14:00	
Chlorobenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Chloroethane	ug/L	<0.37	1.0	09/29/14 14:00	
Chloroform	ug/L	<2.5	5.0	09/29/14 14:00	
Chloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromochloromethane	ug/L	<0.50	1.0	09/29/14 14:00	
Dibromomethane	ug/L	<0.43	1.0	09/29/14 14:00	
Dichlorodifluoromethane	ug/L	<0.20	1.0	09/29/14 14:00	
Diisopropyl ether	ug/L	<0.50	1.0	09/29/14 14:00	
Ethylbenzene	ug/L	<0.50	1.0	09/29/14 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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE
Pace Project No.: 40103988

METHOD BLANK: 1051271 Matrix: Water
Associated Lab Samples: 40103942001, 40103942002, 40103942007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	09/29/14 14:00	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	09/29/14 14:00	
m&p-Xylene	ug/L	<1.0	2.0	09/29/14 14:00	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	09/29/14 14:00	
Methylene Chloride	ug/L	<0.23	1.0	09/29/14 14:00	
n-Butylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
n-Propylbenzene	ug/L	<0.50	1.0	09/29/14 14:00	
Naphthalene	ug/L	<2.5	5.0	09/29/14 14:00	
o-Xylene	ug/L	<0.50	1.0	09/29/14 14:00	
p-Isopropyltoluene	ug/L	<0.50	1.0	09/29/14 14:00	
sec-Butylbenzene	ug/L	<2.2	5.0	09/29/14 14:00	
Styrene	ug/L	<0.50	1.0	09/29/14 14:00	
tert-Butylbenzene	ug/L	<0.18	1.0	09/29/14 14:00	
Tetrachloroethene	ug/L	<0.50	1.0	09/29/14 14:00	
Toluene	ug/L	<0.50	1.0	09/29/14 14:00	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	09/29/14 14:00	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	09/29/14 14:00	
Trichloroethene	ug/L	<0.33	1.0	09/29/14 14:00	
Trichlorofluoromethane	ug/L	<0.17	1.0	09/29/14 14:00	
Vinyl chloride	ug/L	<0.18	1.0	09/29/14 14:00	
4-Bromofluorobenzene (S)	%	92	59-130	09/29/14 14:00	
Dibromofluoromethane (S)	%	92	70-130	09/29/14 14:00	
Toluene-d8 (S)	%	95	70-130	09/29/14 14:00	

LABORATORY CONTROL SAMPLE & LCSD: 1051272

LABORATORY CONTROL SAMPLE & LCSD: 1051272			1051273							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.8	56.3	118	113	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	50	45.4	44.8	91	90	70-130	1	20	
1,1,2-Trichloroethane	ug/L	50	53.8	53.8	108	108	70-130	0	20	
1,1-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,1-Dichloroethene	ug/L	50	60.2	58.0	120	116	70-132	4	20	
1,2,4-Trichlorobenzene	ug/L	50	53.6	52.2	107	104	70-130	3	20	
1,2-Dibromo-3-chloropropane	ug/L	50	40.9	40.4	82	81	50-150	1	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	52.4	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.0	51.0	104	102	70-130	2	20	
1,2-Dichloroethane	ug/L	50	52.1	50.7	104	101	70-130	3	20	
1,2-Dichloropropane	ug/L	50	59.8	57.8	120	116	70-130	3	20	
1,3-Dichlorobenzene	ug/L	50	51.6	50.4	103	101	70-130	2	20	
1,4-Dichlorobenzene	ug/L	50	51.5	50.3	103	101	70-130	2	20	
Benzene	ug/L	50	55.3	53.1	111	106	70-130	4	20	
Bromodichloromethane	ug/L	50	60.4	58.8	121	118	70-130	3	20	
Bromoform	ug/L	50	56.6	54.7	113	109	70-130	3	20	
Bromomethane	ug/L	50	50.3	56.0	101	112	34-157	11	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

LABORATORY CONTROL SAMPLE & LCSD: 1051272			1051273							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	58.4	56.5	117	113	70-132	3	20	
Chlorobenzene	ug/L	50	53.4	52.2	107	104	70-130	2	20	
Chloroethane	ug/L	50	51.6	50.4	103	101	60-143	2	20	
Chloroform	ug/L	50	53.5	51.5	107	103	70-130	4	20	
Chloromethane	ug/L	50	56.8	55.7	114	111	43-148	2	20	
cis-1,2-Dichloroethene	ug/L	50	54.3	52.8	109	106	51-133	3	20	
cis-1,3-Dichloropropene	ug/L	50	53.0	51.5	106	103	70-130	3	20	
Dibromochloromethane	ug/L	50	58.9	57.0	118	114	70-130	3	20	
Dichlorodifluoromethane	ug/L	50	73.6	71.6	147	143	10-174	3	20	
Ethylbenzene	ug/L	50	56.8	55.3	114	111	70-130	3	20	
Isopropylbenzene (Cumene)	ug/L	50	53.0	51.5	106	103	70-136	3	20	
m&p-Xylene	ug/L	100	113	109	113	109	70-131	3	20	
Methyl-tert-butyl ether	ug/L	50	50.7	49.4	101	99	54-139	3	20	
Methylene Chloride	ug/L	50	53.5	51.8	107	104	70-130	3	20	
o-Xylene	ug/L	50	56.6	55.1	113	110	70-130	3	20	
Styrene	ug/L	50	51.7	49.8	103	100	70-130	4	20	
Tetrachloroethene	ug/L	50	63.9	63.1	128	126	70-130	1	20	
Toluene	ug/L	50	54.4	52.4	109	105	70-130	4	20	
trans-1,2-Dichloroethene	ug/L	50	56.6	54.7	113	109	70-130	4	20	
trans-1,3-Dichloropropene	ug/L	50	48.8	48.1	98	96	70-130	2	20	
Trichloroethene	ug/L	50	60.6	58.6	121	117	70-130	3	20	
Trichlorofluoromethane	ug/L	50	63.8	61.3	128	123	50-150	4	20	
Vinyl chloride	ug/L	50	60.9	58.6	122	117	59-157	4	20	
4-Bromofluorobenzene (S)	%				101	102	59-130			
Dibromofluoromethane (S)	%				93	93	70-130			
Toluene-d8 (S)	%				94	94	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711			1053712									
Parameter	Units	40104015002	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,1,1-Trichloroethane	ug/L	<0.50	50	50	56.5	55.8	113	112	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	45.1	45.3	90	91	70-130	0	20	
1,1,2-Trichloroethane	ug/L	<0.16	50	50	54.4	53.8	109	108	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	50.1	50.1	100	100	70-130	0	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	57.6	58.1	115	116	70-138	1	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	53.4	53.8	107	108	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	41.9	42.6	84	85	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.16	50	50	53.0	52.5	106	105	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.7	51.3	101	103	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	50.3	50.5	101	101	70-130	1	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	58.1	57.9	116	116	70-130	0	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	50.0	50.0	100	100	70-130	0	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	50.6	50.7	101	101	70-130	0	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1053711				1053712									
Parameter	Units	40104015002	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max	Qual
		Result	Spike	Spike									
Benzene	ug/L	<0.50	50	50	52.7	52.6	105	105	70-130	0	20		
Bromodichloromethane	ug/L	<0.50	50	50	59.0	58.6	118	117	70-130	1	20		
Bromoform	ug/L	<0.50	50	50	55.7	55.7	111	111	70-130	0	20		
Bromomethane	ug/L	<2.4	50	50	58.8	59.6	118	119	34-159	1	20		
Carbon tetrachloride	ug/L	<0.50	50	50	56.4	56.2	113	112	70-132	0	20		
Chlorobenzene	ug/L	<0.50	50	50	52.7	51.8	105	104	70-130	2	20		
Chloroethane	ug/L	<0.37	50	50	49.3	49.2	99	98	60-143	0	20		
Chloroform	ug/L	<2.5	50	50	51.6	50.9	103	102	70-130	1	20		
Chloromethane	ug/L	<0.50	50	50	54.2	53.9	108	108	43-149	1	20		
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	52.5	51.9	105	104	48-137	1	33		
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	52.6	52.7	105	105	70-130	0	20		
Dibromochloromethane	ug/L	<0.50	50	50	58.3	57.2	117	114	70-130	2	20		
Dichlorodifluoromethane	ug/L	<0.20	50	50	68.7	65.7	137	131	10-174	4	20		
Ethylbenzene	ug/L	<0.50	50	50	55.6	55.1	111	110	70-130	1	20		
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	52.0	51.7	104	103	70-136	1	20		
m&p-Xylene	ug/L	<1.0	100	100	111	109	111	109	70-135	1	20		
Methyl-tert-butyl ether	ug/L	<0.17	50	50	49.8	50.3	100	101	54-139	1	20		
Methylene Chloride	ug/L	<0.23	50	50	51.5	51.7	103	103	70-133	0	20		
o-Xylene	ug/L	<0.50	50	50	55.9	55.3	112	111	70-130	1	20		
Styrene	ug/L	<0.50	50	50	50.4	48.8	101	98	70-130	3	20		
Tetrachloroethene	ug/L	<0.50	50	50	64.7	63.1	129	126	70-130	3	20		
Toluene	ug/L	<0.50	50	50	53.2	52.9	106	106	70-130	1	20		
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.9	53.8	110	108	70-130	2	20		
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	49.6	48.8	99	98	70-130	2	20		
Trichloroethene	ug/L	2.3	50	50	61.1	60.2	118	116	70-130	2	20		
Trichlorofluoromethane	ug/L	<0.17	50	50	61.0	60.1	122	120	50-150	1	20		
Vinyl chloride	ug/L	<0.18	50	50	57.1	57.1	114	114	59-158	0	20		
4-Bromofluorobenzene (S)	%						102	101	59-130				
Dibromofluoromethane (S)	%						91	92	70-130				
Toluene-d8 (S)	%						94	93	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

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

QC Batch: OEXT/24385 Analysis Method: WI MOD DRO

QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS

Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004

METHOD BLANK: 1051542

Matrix: Solid

Associated Lab Samples: 40103988001, 40103988002, 40103988003, 40103988004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	<0.80	2.0	09/29/14 10:29	

LABORATORY CONTROL SAMPLE & LCSD: 1051543

1051544

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	40	34.3	29.7	86	74	70-120	14	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 223432 WINNECONNE

Pace Project No.: 40103988

QC Batch: OEXT/24394 Analysis Method: WI MOD DRO

QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS

Associated Lab Samples: 40103988005, 40103988006

METHOD BLANK: 1051890

Matrix: Solid

Associated Lab Samples: 40103988005, 40103988006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	<0.80	2.0	09/29/14 14:48	

LABORATORY CONTROL SAMPLE & LCSD: 1051891

1051892

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	40	35.3	32.3	88	81	70-120	9	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 223432 WINNECONNE
Pace Project No.: 40103988

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: MSV/25894

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/25911

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

R1 RPD value was outside control limits.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

W Non-detect results are reported on a wet weight basis.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 223432 WINNECONNE

Pace Project No.: 40103988

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40103988001	GP-12-1 2.5-5	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103988002	GP-12-1 12.5-15	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103988003	GP-12-2 5-7.5	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103988004	GP-12-2 12.5-15	WI MOD DRO	OEXT/24385	WI MOD DRO	GCSV/11953
40103988005	GP-12-3 10-12.5	WI MOD DRO	OEXT/24394	WI MOD DRO	GCSV/11954
40103988006	GP-12-3 17.5-20	WI MOD DRO	OEXT/24394	WI MOD DRO	GCSV/11954
40103988001	GP-12-1 2.5-5	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988002	GP-12-1 12.5-15	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988003	GP-12-2 5-7.5	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988004	GP-12-2 12.5-15	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988005	GP-12-3 10-12.5	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988006	GP-12-3 17.5-20	TPH GRO/PVOC WI ext.	GCV/13273	WI MOD GRO	GCV/13278
40103988001	GP-12-1 2.5-5	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103988002	GP-12-1 12.5-15	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103988003	GP-12-2 5-7.5	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103988004	GP-12-2 12.5-15	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103988005	GP-12-3 10-12.5	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103988006	GP-12-3 17.5-20	EPA 3050	MPRP/10876	EPA 6010	ICP/9624
40103942001	TRC-12-2	EPA 6010	ICP/9643		
40103942002	TRC-12-1	EPA 6010	ICP/9643		
40103942007	TRC-12-3	EPA 6010	ICP/9643		
40103942001	TRC-12-2	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103942002	TRC-12-1	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103942007	TRC-12-3	EPA 7470	MERP/4501	EPA 7470	MERC/6013
40103988001	GP-12-1 2.5-5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103988002	GP-12-1 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103988003	GP-12-2 5-7.5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103988004	GP-12-2 12.5-15	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103988005	GP-12-3 10-12.5	EPA 7471	MERP/4508	EPA 7471	MERC/6024
40103988006	GP-12-3 17.5-20	EPA 7471	MERP/4512	EPA 7471	MERC/6031
40103988001	GP-12-1 2.5-5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103988002	GP-12-1 12.5-15	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103988003	GP-12-2 5-7.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103988004	GP-12-2 12.5-15	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103988005	GP-12-3 10-12.5	EPA 5035/5030B	MSV/25893	EPA 8260	MSV/25894
40103988006	GP-12-3 17.5-20	EPA 5035/5030B	MSV/25909	EPA 8260	MSV/25911
40103942001	TRC-12-2	EPA 8260	MSV/25890		
40103942002	TRC-12-1	EPA 8260	MSV/25890		
40103942007	TRC-12-3	EPA 8260	MSV/25890		

REPORT OF LABORATORY ANALYSIS

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

40103988

"Preservation Codes"

I=Sodium Thiosulfate	J=Other
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

**PRESERVATION
(CODE)***

PO #:		Regulatory Program:

Warrant to arrest and return to custody

VOCs

7

Profile #

Cooler Custody Seal
Present / Not Present

Jacki Johnson - Fwd: Winneconne analytical samples from TRC

40103988

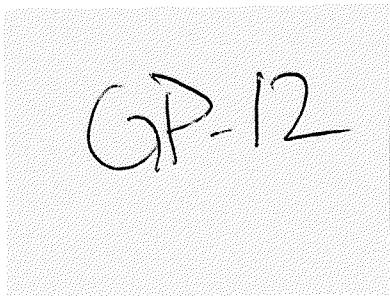
From: Tod Noltemeyer
To: Hamilton, Abigail; Johnson, Jacki; WI Sample Receiving
Date: 9/24/2014 10:47 AM
Subject: Fwd: Winneconne analytical samples from TRC

Per below, for TRC Winneconne project coming in to GB this morning put the samples in five batches: GP5, GP8, GP9, GP11, GP12 I think are the numbers. They are not on separate COCs, but they need those different GP sample sites in different workorders.

Thanks, Tod

Project Manager
 Pace Analytical - WI
 (608) 232-3300

Tod.Noltemeyer@pacelabs.com



>>> "Siewert, Dennis" <DSiewert@trcsolutions.com> 9/24/2014 10:10 AM >>>

Tod,

At some point, I believe that we will need to provide separate analytical data to the owners of each of the 5 sites that we investigated, including soils and groundwater results. Can we get an output from you which would include 5 separate sub reports for the 5 sites? The reason we would like to do this is to offer each site owner confidential results for their respective site.

Please let me know if this is something you could help us out with.

Thanks,

Dennis

Dennis S. Siewert
 Senior Designer
 (Mechanical & Electrical)



708 Heartland Trail, Suite 3000 Madison, WI
 T: 608.826.3659 | F: 608.826.3941 | C: 608.235.7084

Follow us on [LinkedIn](#) or [Twitter](#) | www.trcsolutions.com

This email has been scanned by the Symantec Email Security.cloud service.
 For more information please visit <http://www.symanteccloud.com>

Sample Condition Upon Receipt

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

Pace Analytical™

Project #

WO#: 40103988

Client Name: TRC

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: Waltco
Tracking #: 640060-1/2/3



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: 20 / Corr:

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

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

Person examining contents:

Date: 9/24/14

Initials: RMS

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: <u>9/24/14</u>
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>ORD hold up 9/27</u> <u>RMS 9/24/14</u>
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. <u>9.5 and 10.5 12.0 16.5</u>
Sample Labels match COC:	☐ Yes ☒ No ☐ N/A	12. <u>times on VOA 2 different for 007, 8, 9, 12, 15, 30</u> <u>label washed off VOA 008, see comments RMS 9/24/14</u>
- Includes date/time/ID/Analysis Matrix:		
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: <u>RMS</u> 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): <u>327</u>		

Client Notification/ Resolution:

Person Contacted:

Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

013 VOA and GRO ID: 5 "6.0 11-2 12.5-15", no sample times 001-006 VOA, 010, 011, 16-25
17 18, 29, 31-36 VOA, no sample times on 40x soils except 5, 6, 13, 14 RMS 9/24/14

Project Manager Review:

Date:

Appendix F

Special Provisions

1. Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater, Item _____.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing contaminated soil at a DNR approved bioremediation and landfill facility. The closest DNR approved facilities are:

Advanced Disposal - Hickory Meadows Landfill
W3105 Schneider Road
Hilbert, Wisconsin 54129

Waste Management Valley Trail Landfill
N9101 Willard Rd.
Berlin, WI 54923

Perform this work in accordance with section 205 of the standard specifications and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

This special provision also describes pumping, containerizing, and disposing of contaminated groundwater (if dewatering is necessary).

Perform this work in accordance to standard spec 205 and with pertinent parts of Chapters NR 100-299 of the Wisconsin Administrative Code, as supplemented herein. Perform all work necessary to control, handle, and dispose of groundwater and surface water, and all other water that may be encountered within contaminated areas, as required for performance of the work.

A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations

The department and others have completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that VOC and/or petroleum-contaminated soil and/or groundwater is potentially present at the following location(s) as shown on the plans:

- Station 135+00 to the Wolf River within STH 116 construction limits (Creative Tile and Marble, 29 W. Main Street and The Other Place, 19/21 W. Main Street)
- From the Wolf River to Station 148+50 within STH 116 construction limits Radtke Contractors (15 & 21 E. Main Street), A1 Auto Sales / Steve's Marine (105 E. Main Street) and Hometown Family Hair Care (113 E. Main Street).

Contaminated soils, groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils, groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Contaminated soil and groundwater at other

locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name: Kathie VanPrice
Wisconsin DOT, Northeast Region
Address: 944 Vanderperren Way
Green Bay, WI 54324
Phone: (920) 492-7175
Fax: (920) 492-5640
E-mail: Kathie.vanprice@dot.state.wi.us

Name: Dan Haak
TRC Environmental Corporation
Address: 708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: (608) 826-3628
Fax: (608) 826-3941
E-mail: DHaak@trcsolutions.com

A.3 Coordination

Coordinate work under this contract with the environmental consultant retained by the department:

Consultant: TRC Environmental Corporation
Address: 708 Heartland Trail, Suite 3000, Madison, WI 53717
Fax: (608) 826-3941

Contact: Dan Haak
Phone: (608) 826-3628 (office), (608) 886-7423 (mobile)
E-mail: DHaak@trcsolutions.com

Contact: Dennis Siewert
Phone: 608-826-3659 (office), 608-235-7084 (mobile)
E-mail: dsiewert@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation and landfill facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and

4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation and landfill facility.
5. Identifying contaminated groundwater to be hauled for treatment and disposal (if dewatering is necessary). Coordinating temporary storage containers, groundwater characterization, and location for disposal of contaminated water.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved bioremediation facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the bioremediation and landfill facility. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the bioremediation and landfill facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells may be present within the construction limits. Protect all groundwater monitoring wells to maintain their integrity. Adjust wells that do not conflict with structures, pavements, sidewalks, curb and gutter, and driveways to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Kathie VanPrice with the department, at (920) 492-7175.

A.6 Health and Safety Requirements for Workers Remediating Contamination

Supplement subsection 107.1 of the standard specifications with the following:

During excavation activities, expect to encounter soil contaminated with VOCs, gasoline, diesel fuel, fuel oil, or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of VOC or petroleum-contaminated soil at the bioremediation facility is subject to the facility's safety policies.

B (Vacant)

C Construction

Supplement subsection 205.3 of the standard specification with the following:

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site treatment and disposal at the WDNR-licensed bioremediation and landfill facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 250 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material in accordance with NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The Department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the Department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

Directly load and haul soils designated by the environmental consultant for offsite disposal to the DNR approved bioremediation and landfill facility. Verify that vehicles used to transport contaminated material are licensed for such activity in accordance with applicable state and federal regulations. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas.

Water generated from dewatering activities within the contaminated groundwater areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Pump contaminated water that exceeds surface water discharge limits, as determined by environmental consultant, into temporary holding tanks provided by others, as necessary to complete construction. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage in accordance to this special provision.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming,

ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

The environmental consultant will coordinate holding tank mobilizations, waste characterization sampling of accumulated water, and transportation/disposal of contaminated water. The cost for holding tank mobilization, transportation, and contaminated water disposal will be paid by others.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater in tons of contaminated soil accepted by the bioremediation and landfill facility as documented by weight tickets generated by the bioremediation and landfill facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the bioremediation and landfill facility.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and treatment/disposal of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

205-003 (20080902)