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December 13, 2016

Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
2984 Shawano Avenue
P.O. Box 10448
Green Bay, Wisconsin 54307-0448

RECEIVED

DEC 19 2016

WI DNR - GREEN BAY

Attn: Tauren R. Beggs

RE: WDNR BRRTS No. 02-36-544383
Status Report – November 2016 Soil Gas and Groundwater Monitoring Results
United Laundries and Dry Cleaners, Inc. 623 Reed Avenue, Manitowoc, Wisconsin

Dear Mr. Beggs:

Shannon & Wilson prepared this Report to summarize November 2016 soil gas and groundwater results for the United Laundries and Dry Cleaners, Inc. (United) facility. Site activities were completed in accordance with Shannon & Wilson's October 10, 2016 change order request. The change order was prepared in response to WDNR's review of Wisconsin Department of Natural Resources (WDNR) Case Closure Denial letter dated August 11th, 2016. The scope of work for the change order includes the following tasks:

- Additional groundwater sample collection at MW-10;
- Additional soil sample collection to define the extent of soil contamination;
- VE confirmation soil and soil gas sample collection;
- Operation and Maintenance Plan preparation; and
- Resubmittal of Case Closure documents.

November 2016 Groundwater and Soil Gas Sample Collection

Additional groundwater and soil gas samples were collected on November 17, 2016. A groundwater sample collected at MW-10 was submitted to Pace Analytical and analyzed for VOCs by Method 8260. Historic groundwater monitoring results are summarized in Table 1 and the laboratory report is included in Appendix A.

Concurrent with MW-10 sample collection, Shannon & Wilson collected sub-floor soil gas samples at the United and Piggly Wiggly buildings. In preparation for soil gas sampling, all

three SSDS's were turned off on November 10th, 2016. Soil gas samples were collected from sub-floor vapor probes VP-1, VP-2, and VP-3 at the United Dry Cleaner building and at VP-4 at the Piggly Wiggly building. Flexible tubing was used to connect each probe to 6-liter Summa canisters provided by the laboratory. Summa canisters were equipped with a flow controller calibrated by the laboratory; each canister took 45 minutes to fill. All air samples were analyzed for chlorinated VOCs (cis-1,2-dichloroethene, trans 1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride) using EPA Method TO-15 by Pace Analytical Services of Minneapolis, Minnesota. Vapor probe and indoor results are summarized in Tables 2 and 3. Laboratory reports for November 2016 soil gas samples are included in Appendix B.

November 2016 Groundwater and Soil Gas Sample Results

Tetrachloroethene (PCE) was detected in the November 2016 MW-10 sample at a low concentration (3.8 ug/L). As with previous MW-10 samples, PCE was detected below the 5 mg/l Enforcement Standard (ES), but above the 0.5 ug/l Preventive Action Limit (PAL).

PCE was detected at low concentration in all November 2016 soil gas samples. PCE concentration ranged from 21.6 ppbv at VP-4 to 167 ppbV at VP-2. TCE was also detected at a low concentration (0.095 ppbv) at VP-4.

As shown on Table 2, PCE exceeded the 210 ppbV Vapor Risk Screening Level (VRSL) for residential buildings at VP-2, VP-3, and VP-4 in April 2011 prior to installation of the interim response SSDS's. After the SSDS's were installed in December 2011, concentrations declined. PCE exceeded the VRSL at VP-2 in March 2012 samples, but all VOCs were detected below the VRSLs in the remaining March 2012 samples, and in August 2012 and November 2016 samples. As shown on Table 3, PCE exceeded the 900 ppbV VRSL for small commercial buildings at VP-2, VP-3, and VP-4 in April 2011. All VOCs were detected below the VRSL in March 2012, August 2012, and November 2016 samples.

Recommendations

Shannon & Wilson recommends collection of post remediation soil samples concurrent with well abandonment. We anticipate that well abandonment and soil sample collection will be completed within the next few weeks. Soil sample results and well abandonment documentation will be submitted with the Revised Case Closure Request. Because PCE at MW-10 remains below the ES, and no other groundwater samples were collected we see no need for resubmittal of the off-site notification letters. Property ownership remains the same since off-site letters were sent in May 2016.

Ms. Tauren R. Beggs
Wisconsin Department of Natural Resources
December 13, 2016
Page 3 of 3

SHANNON & WILSON, INC.

Following soil sample collection, Shannon & Wilson would also like to discuss continuing obligations for the United Dry Cleaner property. All three SSDS's were installed as an interim response in December 2011. Because November 2016 samples were collected while the SSDS system were not in operation, results indicate soil gas is below the VRSL for both residential and small commercial buildings. After removing a significant volume of contaminated soil, operating an SVE, and after operating the SSDS's for five years we question the need for continued operation of the SSDS's as a condition of closure.

If you have any questions please call me at (608) 442-5223.

Sincerely,

SHANNON & WILSON, INC.



Mark S. McColloch, P.G.
Senior Associate

MSM:DPT/msm

cc: Steve Hamann, Zenith Properties LLC

United_Dec_2016_Status_Report

Tables

Table 1 (Page 1 of 2)
Historic Groundwater Sample Results
United Laundries and Dry Cleaners, Inc., 623 Reed Avenue, Manitowoc, Wisconsin

Sample Date / Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	PAL	ES
January 25, 2006												
Tetrachloroethene (PCE)	180	--	--	--	--	--	--	--	--	--	0.5	5
March 19, 2010												
Tetrachloroethene (PCE)	120	41	17	--	--	--	--	--	--	--	0.5	5
1,1,1 Trichloroethane	<1.8	<0.50>	<0.37>	--	--	--	--	--	--	--	40	200
October 5, 2010												
Tetrachloroethene (PCE)	58.4	62.1	11.8(12.0)	5.2	41.1	--	--	--	--	--	0.5	5
Trichloroethene (TCE)	0.67 J	<0.48	<0.48	<0.48	<0.48	--	--	--	--	--	0.5	5
1,1,1 Trichloroethane	<0.90	1.7	<0.90	<0.90	<0.90	--	--	--	--	--	40	200
April 27, 2011												
Tetrachloroethene (PCE)	87.4(83.1)	71.0	9.9	3.1	40.5	--	--	--	--	--	0.5	5
Trichloroethene (TCE)	0.93 J	<0.48	<0.48	<0.48	<0.48	--	--	--	--	--	0.5	5
1,1,1 Trichloroethane	<0.90	1.3	<0.90	<0.90	<0.90	--	--	--	--	--	40	200
December 21, 2011												
Tetrachloroethene (PCE)	--	--	--	--	--	32.1(30.6)	23.9	--	--	--	0.5	5
Methylene Chloride	--	--	--	--	--	0.46	<0.43	--	--	--	0.5	5
November 14, 2012												
Tetrachloroethene (PCE)	--	--	--	--	--	--	--	13.6(14.2)	<0.45	--	0.5	5
November 19, 2013												
Tetrachloroethene (PCE)	72.7	35.2	8.4	1.1	35.1(31.5)	28.9	15.5	9.6	<0.45	--	0.5	5
Trichloroethene (TCE)	0.97 J	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	--	0.5	5
1,1,1 Trichloroethane	0.59 J	0.59 J	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	--	40	200
February 11, 2014												
Tetrachloroethene (PCE)	30.7(31.5)	36.7	--	<0.47	--	34.6	26.0	8.2	--	--	0.5	5
Trichloroethene (TCE)	<0.36	<0.36	--	<0.36	--	<0.36	<0.36	<0.36	--	--	0.5	5
1,1,1 Trichloroethane	<0.44	0.55 J	--	<0.44	--	<0.44	<0.44	<0.44	--	--	40	200

Table 1 (Page 2 of 2)
Historic Groundwater Sample Results
United Laundries and Dry Cleaners, Inc., 623 Reed Avenue, Manitowoc, Wisconsin

Sample Date / Analyte	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	PAL	ES
May 14, 2014												
Tetrachloroethene (PCE)	27.0(27.3)	15.9	5.7	0.96	27.4	24.7	10.3	3.7	<0.45	--	0.5	5
August 19, 2014												
Tetrachloroethene (PCE)	25.5	10.8	4.8	0.69 J	18.7(17.9)	22.7	21.4	2.1	<0.45	--	0.5	5
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	--	60	600
November 25, 2014												
Tetrachloroethene (PCE)	19.5	9.2	6.8	<0.50	10.3	36.3	21.4(20.8)	3.5	<0.50	--	0.5	5
February 25, 2015												
Tetrachloroethene (PCE)	20.3	8.4	7.1	<0.50	11.1	30.1(30.1)	22.7	3.0	--	--	0.5	5
May 14, 2015												
Tetrachloroethene (PCE)	16.1	18.6	7.4	<0.50	9.9	33.9	22.4(21.4)	2.8	<0.50	--	0.5	5
August 31, 2015												
Tetrachloroethene (PCE)	12.6(12.9)	9.0	6.8	<0.50	9.1	29.8	22.1	2.6	<0.50	--	0.5	5
Methyl-tert-butyl ether	0.18 J	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	--	12	60`
November 5, 2015												
Tetrachloroethene (PCE)	9.1	12.6	5.7	<0.50	6.8	33.6	17.4(17.2)	2.2	<0.50	2.8	0.5	5
1,1,1 Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83 J	40	200
Methyl-tert-butyl ether	0.18 J	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	12	60`
February 17, 2016												
Tetrachloroethene (PCE)	11.1(9.7)	8.1	5.4	<0.50	5.6	37.2	18.0	1.9	<0.50	3.5	0.5	5
Methyl-tert-butyl ether	<0.17(0.29J)	<0.17	0.23 J	<0.17	0.26 J	<0.17	<0.17	<0.17	<0.17	0.29 J	12	60
November 17, 2016												
Tetrachloroethene (PCE)	--	--	--	--	--	--	--	--	--	3.8	0.5	5
1,1,1 Trichloroethane	--	--	--	--	--	--	--	--	--	0.90 J	40	200
Methyl-tert-butyl ether	--	--	--	--	--	--	--	--	--	0.21 J	12	60

PAL - Preventive Action Limit per Wisconsin Admin. Code sec. NR 141.10.

ES - Enforcement Standard per Wisconsin Admin. Code sec. NR 141.10.

< - Not Detected at or above adjusted reporting limit.

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

Duplicate sample results are shown in parenthesis.

All concentrations are reported in µg/l.

Concentrations exceeding the PAL are in red italics.

Concentrations exceeding the ES have been shaded yellow.

Table 2
Results for Soil Gas Probes – Residential Building Vapor Risk Screening Levels
Piggly Wiggly and United Dry Cleaners Buildings
United Laundries and Dry Cleaners, Inc., 623 Reed Avenue, Manitowoc, Wisconsin

Constituents	Vapor Risk Screening Level ⁽¹⁾	Vapor Action Level ⁽²⁾	Attenuation Factor ⁽³⁾	Soil Gas Probe (Sub-Floor)				
				VP-1	VP-2	FD-1(VP-2)	VP-3	VP-4
				Sample Location	VP-1	VP-2	FD-1(VP-2)	VP-3
				Sample Date	Apr-11	Apr-11	Apr-11	Apr-11
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<6.7	<214	<172	<13,70	<686
trans-1,2-Dichloroethene	--	NA	0.03	<6.7	<214	<172	<13,70	<686
Tetrachloroethene (PCE)	210	6.2	0.03	87.7	1,710	1,270	763,00	2,700
Trichloroethene (TCE)	13	0.39	0.03	<6.7	<214	<172	<13,70	<686
Vinyl Chloride	22	0.65	0.03	<6.7	<214	<172	<13,70	<686
				Sample Location	VP-1	VP-2	VP-2(FD-1)	VP-3
				Sample Date	Mar-12	Mar-12	Mar-12	Mar-
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
trans-1,2-Dichloroethene	--	NA	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
Tetrachloroethene (PCE)	210	6.2	0.03	184	318	268	70.5	63.8
Trichloroethene (TCE)	13	0.39	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
Vinyl Chloride	22	0.65	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
				Sample Location	VP-1	VP-2	VP-2/	VP-3
				Sample Date	Aug-12	Aug-12	Aug-12	Aug-12
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<3.5	--	--	--	--
trans-1,2-Dichloroethene	--	NA	0.03	<3.5	--	--	--	--
Tetrachloroethene (PCE)	210	6.2	0.03	140	--	--	--	--
Trichloroethene (TCE)	13	0.39	0.03	<3.5	--	--	--	--
Vinyl Chloride	22	0.65	0.03	<3.5	--	--	--	--
				Sample Location	VP-1	VP-2	--	VP-3
				Sample Date	Nov-16	Nov-16	Nov-16	Nov-16
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<0.082	<0.082	--	<0.082	<0.082
trans-1,2-Dichloroethene	--	NA	0.03	<0.13	<0.13	--	<0.13	<0.13
Tetrachloroethene (PCE)	210	6.2	0.03	25.4	167	--	27.3	21.6
Trichloroethene (TCE)	13	0.39	0.03	<0.068	<0.068	--	0.2	0.095
Vinyl Chloride	22	0.65	0.03	<0.1	<0.1	--	<0.1	<0.1

Notes:

Vapor Risk Screening Level (VRSL) = Vapor Action Level (VAL) ÷ Attenuation Factor (AF) per Wisconsin Department of Natural Resources Quick Look-Up Table, dated May 2016.

Vapor Action Level (VAL) for Residential Land Use per Wisconsin Department of Natural Resources Quick Look-Up Table, dated May 2016.

Attenuation Factor (AF) = 0.03 for sub-floor vapor for Residential/Small Commercial Buildings per Wisconsin Department of Natural Resources Quick Look-Up Table, dated June 2015

Concentrations exceeding the VRSL are shown in bold.

< Below reporting limit

J Estimated concentration at or above the LOD and below the LQD.

All units are reported in parts per billion by volume (ppbv)

FD-1 -Field duplicate

Table 3
Results for Soil Gas Probes – Small Commercial Building Vapor Risk Screening Levels
Piggly Wiggly and United Dry Cleaners Buildings
United Laundries and Dry Cleaners, Inc., 623 Reed Avenue, Manitowoc, Wisconsin

Constituents	Vapor Risk Screening Level ⁽¹⁾	Vapor Action Level ⁽²⁾	Attenuation Factor ⁽³⁾	Soil Gas Probe (Sub-Floor)				
				VP-1	VP-2	FD-1(VP-2)	VP-3	VP-4
				Sample Location	VP-1	VP-2	FD-1(VP-2)	VP-3
				Sample Date	Apr-11	Apr-11	Apr-11	Apr-11
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<6.7	<214	<172	<13,70	<686
trans-1,2-Dichloroethene	--	NA	0.03	<6.7	<214	<172	<13,70	<686
Tetrachloroethene (PCE)	900	27	0.03	87.7	1,710	1,270	763,00	2,700
Trichloroethene (TCE)	1.6	53	0.03	<6.7	<214	<172	<13,70	<686
Vinyl Chloride	11	370	0.03	<6.7	<214	<172	<13,70	<686
				Sample Location	VP-1	VP-2	VP-2(FD-1)	VP-3
				Sample Date	Mar-12	Mar-12	Mar-12	Mar-
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
trans-1,2-Dichloroethene	--	NA	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
Tetrachloroethene (PCE)	900	27	0.03	184	318	268	70.5	63.8
Trichloroethene (TCE)	1.6	53	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
Vinyl Chloride	11	370	0.03	<13.4	<3.4	<13.4	<3.4	<0.67
				Sample Location	VP-1	VP-2	VP-2/	VP-3
				Sample Date	Aug-12	Aug-12	Aug-12	Aug-12
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<3.5	--	--	--	--
trans-1,2-Dichloroethene	--	NA	0.03	<3.5	--	--	--	--
Tetrachloroethene (PCE)	900	27	0.03	140	--	--	--	--
Trichloroethene (TCE)	1.6	53	0.03	<3.5	--	--	--	--
Vinyl Chloride	11	370	0.03	<3.5	--	--	--	--
				Sample Location	VP-1	VP-2	--	VP-3
				Sample Date	Nov-16	Nov-16	Nov-16	Nov-16
				Sample Depth (ft.)	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	--	NA	0.03	<0.082	<0.082	--	<0.082	<0.082
trans-1,2-Dichloroethene	--	NA	0.03	<0.13	<0.13	--	<0.13	<0.13
Tetrachloroethene (PCE)	900	27	0.03	25.4	167	--	27.3	21.6
Trichloroethene (TCE)	1.6	53	0.03	<0.068	<0.068	--	0.2	0.095
Vinyl Chloride	11	370	0.03	<0.1	<0.1	--	<0.1	<0.1

Notes:

Vapor Risk Screening Level (VRSL) = Vapor Action Level (VAL) ÷ Attenuation Factor (AF) per Wisconsin Department of Natural Resources Quick Look-Up Table, dated May 2016.

Vapor Action Level (VAL) for Residential Land Use per Wisconsin Department of Natural Resources Quick Look-Up Table, dated May 2016.

Attenuation Factor (AF) = 0.03 for sub-floor vapor for Residential/Small Commercial Buildings per Wisconsin Department of Natural Resources Quick Look-Up Table, dated June 2015

Concentrations exceeding the VRSL are shown in bold.

< Below reporting limit

J Estimated concentration at or above the LOD and below the LQD.

All units are reported in parts per billion by volume (ppbv)

FD-1 -Field duplicate

Appendix A

**Laboratory Reports
Groundwater Sample
November MW-10**

November 23, 2016

Mark McColloch
SHANNON & WILSON, INC.
6506 Schroeder Road
Suite 201
Madison, WI 53711

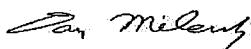
RE: Project: 42-1-37409-001 UNITED DRY CLNR
Pace Project No.: 40142233

Dear Mark McColloch:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky
dan.milewsky@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 42-1-37409-001 UNITED DRY CLNR
Pace Project No.: 40142233

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40142233001	MW-10	Water	11/17/16 10:35	11/17/16 14:25
40142233002	TRIP BLANK	Water	11/17/16 00:00	11/17/16 14:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 42-1-37409-001 UNITED DRY CLNR
Pace Project No.: 40142233

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40142233001	MW-10	EPA 8260	HNW	64
40142233002	TRIP BLANK	EPA 8260	HNW	64

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Lab Sample ID	Client Sample ID						
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers	
40142233001	MW-10						
EPA 8260	1,1,1-Trichloroethane	0.90J	ug/L	1.0	11/22/16 11:59		
EPA 8260	Methyl-tert-butyl ether	0.21J	ug/L	1.0	11/22/16 11:59		
EPA 8260	Tetrachloroethene	3.8	ug/L	1.0	11/22/16 11:59		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Sample: MW-10 Lab ID: 40142233001 Collected: 11/17/16 10:35 Received: 11/17/16 14:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		11/22/16 11:59	630-20-6	
1,1,1-Trichloroethane	0.90J	ug/L	1.0	0.50	1		11/22/16 11:59	71-55-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		11/22/16 11:59	79-34-5	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/22/16 11:59	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/22/16 11:59	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/22/16 11:59	75-35-4	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		11/22/16 11:59	563-58-6	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		11/22/16 11:59	87-61-6	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	96-18-4	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		11/22/16 11:59	120-82-1	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	95-63-6	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/22/16 11:59	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/22/16 11:59	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/22/16 11:59	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/22/16 11:59	78-87-5	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	108-67-8	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	541-73-1	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	142-28-9	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	106-46-7	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		11/22/16 11:59	594-20-7	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		11/22/16 11:59	106-43-4	
Benzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		11/22/16 11:59	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		11/22/16 11:59	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/22/16 11:59	74-83-9	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/22/16 11:59	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/22/16 11:59	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/22/16 11:59	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/22/16 11:59	75-71-8	
Disisopropyl ether	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		11/22/16 11:59	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		11/22/16 11:59	98-82-8	
Methyl-tert-butyl ether	0.21J	ug/L	1.0	0.17	1		11/22/16 11:59	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/22/16 11:59	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/22/16 11:59	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	100-42-5	
Tetrachloroethene	3.8	ug/L	1.0	0.50	1		11/22/16 11:59	127-18-4	

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ANALYTICAL RESULTS

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Sample: MW-10 Lab ID: 40142233001 Collected: 11/17/16 10:35 Received: 11/17/16 14:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/22/16 11:59	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/22/16 11:59	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/22/16 11:59	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/22/16 11:59	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	10061-01-5	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		11/22/16 11:59	179601-23-1	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	104-51-8	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	103-65-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	95-47-6	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		11/22/16 11:59	99-87-6	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		11/22/16 11:59	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		11/22/16 11:59	98-06-6	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/22/16 11:59	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/22/16 11:59	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		11/22/16 11:59	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		11/22/16 11:59	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/22/16 11:59	2037-26-5	

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ANALYTICAL RESULTS

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Sample: TRIP BLANK Lab ID: 40142233002 Collected: 11/17/16 00:00 Received: 11/17/16 14:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		11/22/16 23:37	630-20-6	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	71-55-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		11/22/16 23:37	79-34-5	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/22/16 23:37	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/22/16 23:37	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/22/16 23:37	75-35-4	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		11/22/16 23:37	563-58-6	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		11/22/16 23:37	87-61-6	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	96-18-4	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		11/22/16 23:37	120-82-1	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	95-63-6	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/22/16 23:37	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/22/16 23:37	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/22/16 23:37	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/22/16 23:37	78-87-5	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	108-67-8	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	541-73-1	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	142-28-9	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	106-46-7	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		11/22/16 23:37	594-20-7	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		11/22/16 23:37	106-43-4	
Benzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		11/22/16 23:37	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		11/22/16 23:37	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/22/16 23:37	74-83-9	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/22/16 23:37	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/22/16 23:37	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/22/16 23:37	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/22/16 23:37	75-71-8	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		11/22/16 23:37	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		11/22/16 23:37	98-82-8	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/22/16 23:37	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/22/16 23:37	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/22/16 23:37	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	127-18-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Sample: TRIP BLANK	Lab ID: 40142233002	Collected: 11/17/16 00:00	Received: 11/17/16 14:25	Matrix: Water
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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Toluene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/22/16 23:37	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/22/16 23:37	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/22/16 23:37	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/22/16 23:37	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	10061-01-5	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		11/22/16 23:37	179601-23-1	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	104-51-8	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	103-65-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	95-47-6	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		11/22/16 23:37	99-87-6	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		11/22/16 23:37	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		11/22/16 23:37	98-06-6	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/22/16 23:37	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/22/16 23:37	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		11/22/16 23:37	460-00-4	
Dibromofluoromethane (S)	99	%	70-130		1		11/22/16 23:37	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		11/22/16 23:37	2037-26-5	

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QUALITY CONTROL DATA

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

QC Batch:	241990	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 40142233001, 40142233002			

METHOD BLANK: 1434872	Matrix: Water
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Associated Lab Samples: 40142233001, 40142233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	11/22/16 06:28	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/22/16 06:28	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	11/22/16 06:28	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	11/22/16 06:28	
1,1-Dichloroethane	ug/L	<0.24	1.0	11/22/16 06:28	
1,1-Dichloroethene	ug/L	<0.41	1.0	11/22/16 06:28	
1,1-Dichloropropene	ug/L	<0.44	1.0	11/22/16 06:28	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	11/22/16 06:28	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	11/22/16 06:28	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	11/22/16 06:28	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	11/22/16 06:28	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	11/22/16 06:28	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	11/22/16 06:28	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	11/22/16 06:28	
1,2-Dichloroethane	ug/L	<0.17	1.0	11/22/16 06:28	
1,2-Dichloropropane	ug/L	<0.23	1.0	11/22/16 06:28	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	11/22/16 06:28	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/22/16 06:28	
1,3-Dichloropropane	ug/L	<0.50	1.0	11/22/16 06:28	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/22/16 06:28	
2,2-Dichloropropane	ug/L	<0.48	1.0	11/22/16 06:28	
2-Chlorotoluene	ug/L	<0.50	1.0	11/22/16 06:28	
4-Chlorotoluene	ug/L	<0.21	1.0	11/22/16 06:28	
Benzene	ug/L	<0.50	1.0	11/22/16 06:28	
Bromobenzene	ug/L	<0.23	1.0	11/22/16 06:28	
Bromoform	ug/L	<0.34	1.0	11/22/16 06:28	
Bromochloromethane	ug/L	<0.50	1.0	11/22/16 06:28	
Bromodichloromethane	ug/L	<0.50	1.0	11/22/16 06:28	
Bromoform	ug/L	<0.50	1.0	11/22/16 06:28	
Bromomethane	ug/L	<2.4	5.0	11/22/16 06:28	
Carbon tetrachloride	ug/L	<0.50	1.0	11/22/16 06:28	
Chlorobenzene	ug/L	<0.50	1.0	11/22/16 06:28	
Chloroethane	ug/L	<0.37	1.0	11/22/16 06:28	
Chloroform	ug/L	<2.5	5.0	11/22/16 06:28	
Chloromethane	ug/L	<0.50	1.0	11/22/16 06:28	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	11/22/16 06:28	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	11/22/16 06:28	
Dibromochloromethane	ug/L	<0.50	1.0	11/22/16 06:28	
Dibromomethane	ug/L	<0.43	1.0	11/22/16 06:28	
Dichlorodifluoromethane	ug/L	<0.22	1.0	11/22/16 06:28	
Diisopropyl ether	ug/L	<0.50	1.0	11/22/16 06:28	
Ethylbenzene	ug/L	<0.50	1.0	11/22/16 06:28	

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.

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QUALITY CONTROL DATA

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

METHOD BLANK: 1434872

Matrix: Water

Associated Lab Samples: 40142233001, 40142233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	11/22/16 06:28	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	11/22/16 06:28	
m&p-Xylene	ug/L	<1.0	2.0	11/22/16 06:28	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	11/22/16 06:28	
Methylene Chloride	ug/L	<0.23	1.0	11/22/16 06:28	
n-Butylbenzene	ug/L	<0.50	1.0	11/22/16 06:28	
n-Propylbenzene	ug/L	<0.50	1.0	11/22/16 06:28	
Naphthalene	ug/L	<2.5	5.0	11/22/16 06:28	
o-Xylene	ug/L	<0.50	1.0	11/22/16 06:28	
p-Isopropyltoluene	ug/L	<0.50	1.0	11/22/16 06:28	
sec-Butylbenzene	ug/L	<2.2	5.0	11/22/16 06:28	
Styrene	ug/L	<0.50	1.0	11/22/16 06:28	
tert-Butylbenzene	ug/L	<0.18	1.0	11/22/16 06:28	
Tetrachloroethene	ug/L	<0.50	1.0	11/22/16 06:28	
Toluene	ug/L	<0.50	1.0	11/22/16 06:28	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	11/22/16 06:28	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	11/22/16 06:28	
Trichloroethene	ug/L	<0.33	1.0	11/22/16 06:28	
Trichlorofluoromethane	ug/L	<0.18	1.0	11/22/16 06:28	
Vinyl chloride	ug/L	<0.18	1.0	11/22/16 06:28	
4-Bromofluorobenzene (S)	%	92	70-130	11/22/16 06:28	
Dibromofluoromethane (S)	%	103	70-130	11/22/16 06:28	
Toluene-d8 (S)	%	98	70-130	11/22/16 06:28	

LABORATORY CONTROL SAMPLE: 1434873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.9	104	70-131	
1,1,2,2-Tetrachloroethane	ug/L	50	50.3	101	67-130	
1,1,2-Trichloroethane	ug/L	50	49.7	99	70-130	
1,1-Dichloroethane	ug/L	50	52.3	105	70-133	
1,1-Dichloroethene	ug/L	50	52.8	106	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.2	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.5	89	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	50.3	101	70-130	
1,2-Dichlorobenzene	ug/L	50	51.2	102	70-130	
1,2-Dichloroethane	ug/L	50	52.0	104	70-130	
1,2-Dichloropropane	ug/L	50	47.7	95	70-130	
1,3-Dichlorobenzene	ug/L	50	51.5	103	70-130	
1,4-Dichlorobenzene	ug/L	50	50.6	101	70-130	
Benzene	ug/L	50	52.5	105	60-135	
Bromodichloromethane	ug/L	50	50.9	102	70-130	
Bromoform	ug/L	50	43.4	87	70-130	
Bromomethane	ug/L	50	46.2	92	33-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

LABORATORY CONTROL SAMPLE: 1434873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	48.3	97	70-138	
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	56.7	113	51-130	
Chloroform	ug/L	50	49.6	99	70-130	
Chloromethane	ug/L	50	58.0	116	25-132	
cis-1,2-Dichloroethene	ug/L	50	49.9	100	69-130	
cis-1,3-Dichloropropene	ug/L	50	48.7	97	70-130	
Dibromochloromethane	ug/L	50	48.1	96	70-130	
Dichlorodifluoromethane	ug/L	50	43.4	87	23-130	
Ethylbenzene	ug/L	50	53.0	106	70-136	
Isopropylbenzene (Cumene)	ug/L	50	52.5	105	70-140	
m&p-Xylene	ug/L	100	104	104	70-138	
Methyl-tert-butyl ether	ug/L	50	54.4	109	66-138	
Methylene Chloride	ug/L	50	52.4	105	70-130	
o-Xylene	ug/L	50	52.0	104	70-134	
Styrene	ug/L	50	47.1	94	70-133	
Tetrachloroethene	ug/L	50	48.4	97	70-138	
Toluene	ug/L	50	51.2	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.8	110	70-131	
trans-1,3-Dichloropropene	ug/L	50	47.4	95	69-130	
Trichloroethene	ug/L	50	50.7	101	70-130	
Trichlorofluoromethane	ug/L	50	59.8	120	50-150	
Vinyl chloride	ug/L	50	58.8	118	49-130	
4-Bromoefluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			99	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1435155 1435156

Parameter	Units	MS		MSD		MS	MSD	MS	MSD	% Rec	Max
		40142224001	Result	Spike Conc.	Spike Conc.						
1,1,1-Trichloroethane	ug/L	<1.0	50	50	52.2	52.7	104	105	70-134	1	20
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	48.4	50.1	97	100	67-130	3	20
1,1,2-Trichloroethane	ug/L	<1.0	50	50	47.2	51.0	94	102	70-130	8	20
1,1-Dichloroethane	ug/L	<1.0	50	50	52.4	52.8	105	106	70-134	1	20
1,1-Dichloroethene	ug/L	<1.0	50	50	53.2	54.2	106	108	68-136	2	20
1,2,4-Trichlorobenzene	ug/L	<5.0	50	50	51.8	54.3	101	106	62-139	5	20
1,2-Dibromo-3-chloropropane	ug/L	<5.0	50	50	46.2	48.7	92	97	50-150	5	20
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	48.5	50.6	97	101	70-130	4	20
1,2-Dichlorobenzene	ug/L	<1.0	50	50	51.5	52.7	102	105	70-130	2	20
1,2-Dichloroethane	ug/L	<1.0	50	50	51.4	52.2	103	104	70-130	1	20
1,2-Dichloropropane	ug/L	<1.0	50	50	47.7	50.2	95	100	70-130	5	20
1,3-Dichlorobenzene	ug/L	<1.0	50	50	51.9	54.3	103	108	70-131	5	20
1,4-Dichlorobenzene	ug/L	<1.0	50	50	51.1	53.5	102	106	70-130	5	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

Parameter	Units	40142224001		MS		MSD		1435156		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits				
Benzene	ug/L	<1.0	50	50	53.5	54.5	107	109	57-138	2	20		
Bromodichloromethane	ug/L	<1.0	50	50	51.2	53.8	102	108	70-130	5	20		
Bromoform	ug/L	<1.0	50	50	40.1	42.8	80	86	70-130	7	20		
Bromomethane	ug/L	<5.0	50	50	47.9	50.7	96	101	33-130	6	27		
Carbon tetrachloride	ug/L	<1.0	50	50	49.2	50.9	98	102	70-138	3	20		
Chlorobenzene	ug/L	<1.0	50	50	49.5	53.1	99	106	70-130	7	20		
Chloroethane	ug/L	<1.0	50	50	57.7	60.4	115	121	51-130	5	20		
Chloroform	ug/L	<5.0	50	50	49.4	49.9	99	100	70-130	1	20		
Chloromethane	ug/L	<1.0	50	50	57.6	57.9	115	116	25-132	1	20		
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	50.4	50.8	101	102	61-140	1	20		
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	49.4	50.8	99	102	70-130	3	20		
Dibromochloromethane	ug/L	<1.0	50	50	47.5	50.0	95	100	70-130	5	20		
Dichlorodifluoromethane	ug/L	<1.0	50	50	42.3	43.4	85	87	23-130	3	20		
Ethylbenzene	ug/L	<1.0	50	50	52.1	55.1	104	110	70-138	6	20		
Isopropylbenzene (Cumene)	ug/L	<1.0	50	50	51.7	54.4	103	109	70-152	5	20		
m&p-Xylene	ug/L	<2.0	100	100	102	109	102	108	70-140	6	20		
Methyl-tert-butyl ether	ug/L	<1.0	50	50	53.4	54.2	107	108	66-139	1	20		
Methylene Chloride	ug/L	<1.0	50	50	51.8	53.0	104	106	70-130	2	20		
o-Xylene	ug/L	<1.0	50	50	51.0	53.4	102	107	70-134	4	20		
Styrene	ug/L	3.3	50	50	45.7	48.8	85	91	70-138	6	20		
Tetrachloroethene	ug/L	<1.0	50	50	47.8	50.8	96	102	70-148	6	20		
Toluene	ug/L	<1.0	50	50	50.0	53.1	100	106	70-130	6	20		
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	56.5	56.2	113	112	70-133	1	20		
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	45.9	48.4	92	97	69-130	5	20		
Trichloroethene	ug/L	<1.0	50	50	50.1	51.7	100	103	70-131	3	20		
Trichlorofluoromethane	ug/L	<1.0	50	50	59.9	61.8	120	124	50-150	3	20		
Vinyl chloride	ug/L	<1.0	50	50	57.5	59.3	115	119	49-133	3	20		
4-Bromofluorobenzene (S)	%						98	99	70-130				
Dibromofluoromethane (S)	%						102	99	70-130				
Toluene-d8 (S)	%						97	99	70-130				

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 42-1-37409-001 UNITED DRY CLNR

Pace Project No.: 40142233

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 42-1-37409-001 UNITED DRY CLNR
Pace Project No.: 40142233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40142233001	MW-10	EPA 8260	241990		
40142233002	TRIP BLANK	EPA 8260	241990		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)		
Company Name:	SIA UNION & WILSON	
Branch/Location:	MADISON, WI	
Project Contact:	MARK MCCOLLEY	
Phone:	608/442-5223	
Project Number:	42-#-3740T-001	
Project Name:	UNITED DYE CLEANING	
Project State:	WISCONSIN	
Sampled By (Print):	MARK S. MCCOLLEY (MSM)	
Sampled By (Sign):	MARK S. MCCOLLEY	
PO #:		Regulatory Program:



UPPER MIDWEST REGION

Page 1 of

Page 16 of 18

CHAIN OF CUSTODY

***Preservation Codes**

A=None	B=HCl	C=H ₂ SO ₄	D=HNO ₃	E=D! Water	F=Methanol	G=NaOH
H=Sodium Bisulfate Solution			I=Sodium Thiosulfate	J=Other		

FILTERED? (YES/NO)		TIME	N	PICK List#	HCL	ANALYSIS REQUESTED	40ml Vials	Invoice To Contact:	Mark McClellan										
PRESERVATION (CODE)*									Shawn S. Wilson										
x Codes																			
W = Water																			
DW = Drinking Water																			
GW = Ground Water																			
SW = Surface Water																			
WW = Waste Water																			
WP = Wipe																			
ACTION	MATRIX	3	1	3	1	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #											
1035	GW								3-40ml VB										
									2-40ml VB										

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <i>WA L M Cllm</i>	Date/Time: <i>11-17-16 1425</i>	Received By: <i>Susan Kiffel</i>	Date/Time: <i>11-17-16 1425</i>	PACE Project No. <i>40142233</i>
Transmit Prelim Rush Results by (complete what you want): Email #1: Email #2: Telephone: Fax:	Relinquished By: <i></i>	Date/Time: <i></i>	Received By: <i></i>	Date/Time: <i></i>	Receipt Temp = <i>ROT</i> °C
Samples on HOLD are subject to special pricing and release of liability	Relinquished By: <i></i>	Date/Time: <i></i>	Received By: <i></i>	Date/Time: <i></i>	Sample Receipt pH OK / Adjusted
	Relinquished By: <i></i>	Date/Time: <i></i>	Received By: <i></i>	Date/Time: <i></i>	Cooler Custody Seal Present / Not Present Intact / Not Intact

Pace Container Order #178957

Addresses

Order By :

Company SHANNON & WILSON, INC.
 Contact McCulloch, Mark
 Email msm@shanwil.com
 Address 6506 Schroeder Road
 Address 2 Suite 201
 City Madison
 State WI Zip 53711
 Phone 608-442-5223

Ship To :

Company SHANNON & WILSON, INC.
 Contact McCulloch, Mark
 Email msm@shanwil.com
 Address 6506 Schroeder Road
 Address 2 Suite 201
 City Madison
 State WI Zip 53711
 Phone 608-442-5223

Return To:

Company Pace Analytical Green Bay
 Contact Mleczko, Steven
 Email steve.mleczko@pacelabs.com
 Address 1241 Bellevue Street
 Address 2 Suite 9
 City Green Bay
 State WI Zip 54302
 Phone (920)469-2436

Info

Project Name United Dry Cleaner

Due Date 11/08/2016

Profile

Quote

Project Manager Mleczko, Steven

Return

Carrier Most Economical

Location WI

Trip Blanks

Include Trip Blanks

Bottle Labels

- Blank
- Pre-Printed No Sample IDs
- Pre-Printed With Sample IDs

Bottles

- Boxed Cases
- Individually Wrapped
- Grouped By Sample

Return Shipping Labels

- No Shipper Number
- With Shipper Number

Misc

- | | |
|--|---|
| <input checked="" type="checkbox"/> Sampling Instructions | <input type="checkbox"/> Extra Bubble Wrap |
| <input type="checkbox"/> Custody Seal | <input type="checkbox"/> Short Hold/Rush Stickers |
| <input type="checkbox"/> Temp. Blanks | <input type="checkbox"/> DI Water <input type="text" value="Liter(s)"/> |
| <input checked="" type="checkbox"/> Coolers <input type="text" value="1"/> | <input type="checkbox"/> USDA Regulated Soils |
| <input type="checkbox"/> Syringes | |

COC Options

- Number of Blanks
 Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
1	WT	VOC by 8260	3-40 mL glass vials, HCl preserved	3	0	B-6-265-01VB	
1	WT	Trip BLANK	2 - 40 ml vials w/ HCL	2	0	B-6-233-01VB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date :

11/04/2016

Prepared By:

Mal Yer Her

Verified By:

Page 17 of 18

Pace Analytical

Sample Condition Upon Receipt

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

Client Name: Shannon + Wilson

Project #

WO# : **40142233**



40142233

Courier: FedEx UPS Client Pace Other: _____

Tracking #: _____

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

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used

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

no

Temp Blank Present: yes no

Person examining contents:

Date: 11-17-16

Initials: SM

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:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Date/Time: _____	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
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)	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Initial when completed Lab Std #/ID of preservative Date/ Time: _____
Headspace In VOA Vials (>6mm):	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	14.
Trip Blank Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>372</u> <u>11-17-16 SM</u>				

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

AMT for DM

Date: _____

11/17/16

Appendix B

Laboratory Reports Vapor Probe Samples United Dry Cleaner and Piggly Wiggly Buildings

November 30, 2016

Mr. Mark McColloch
Shannon & Wilson, Inc.
6506 Schroeder Road
Suite 201
Madison, WI 53719

RE: Project: 42-1-37409 United Dry Cleaners
Pace Project No.: 10370748

Dear Mr. McColloch:

Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Carolynne Trout

Carolynne Trout
carolynne.trout@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 42-1-37409 United Dry Cleaners
 Pace Project No.: 10370748

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
 Alaska Certification UST-107
 525 N 8th Street, Salina, KS 67401
 A2LA Certification #: 2926.01
 Alaska Certification #: UST-078
 Alaska Certification #MN00064
 Alabama Certification #40770
 Arizona Certification #: AZ-0014
 Arkansas Certification #: 88-0680
 California Certification #: 01155CA
 Colorado Certification #Pace
 Connecticut Certification #: PH-0256
 EPA Region 8 Certification #: 8TMS-L
 Florida/NELAP Certification #: E87605
 Guam Certification #:14-008r
 Georgia Certification #: 959
 Georgia EPD #: Pace
 Idaho Certification #: MN00064
 Hawaii Certification #MN00064
 Illinois Certification #: 200011
 Indiana Certification#C-MN-01
 Iowa Certification #: 368
 Kansas Certification #: E-10167
 Kentucky Dept of Envi. Protection - DW #90062
 Kentucky Dept of Envi. Protection - WV #:90062
 Louisiana DEQ Certification #: 3086
 Louisiana DHH #: LA140001
 Maine Certification #: 2013011
 Maryland Certification #: 322

Michigan DEPH Certification #: 9909
 Minnesota Certification #: 027-053-137
 Mississippi Certification #: Pace
 Montana Certification #: MT0092
 Nevada Certification #: MN_00064
 Nebraska Certification #: Pace
 New Jersey Certification #: MN-002
 New York Certification #: 11647
 North Carolina Certification #: 530
 North Carolina State Public Health #: 27700
 North Dakota Certification #: R-036
 Ohio EPA #: 4150
 Ohio VAP Certification #: CL101
 Oklahoma Certification #: 9507
 Oregon Certification #: MN200001
 Oregon Certification #: MN300001
 Pennsylvania Certification #: 68-00563
 Puerto Rico Certification
 Saipan (CNMI) #:MP0003
 South Carolina #:74003001
 Texas Certification #: T104704192
 Tennessee Certification #: 02818
 Utah Certification #: MN000642013-4
 Virginia DGS Certification #: 251
 Virginia/VELAP Certification #: Pace
 Washington Certification #: C486
 West Virginia Certification #: 382
 West Virginia DHHR #:9952C
 Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 42-1-37409 United Dry Cleaners
Pace Project No.: 10370748

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10370748001	VP-1	Air	11/17/16 12:57	11/18/16 09:20
10370748002	VP-2	Air	11/17/16 11:55	11/18/16 09:20
10370748003	VP-3	Air	11/17/16 12:07	11/18/16 09:20
10370748004	VP-4	Air	11/17/16 13:20	11/18/16 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 42-1-37409 United Dry Cleaners
Pace Project No.: 10370748

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10370748001	VP-1	TO-15	NCK	5
10370748002	VP-2	TO-15	NCK	5
10370748003	VP-3	TO-15	NCK	5
10370748004	VP-4	TO-15	NCK	5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 42-1-37409 United Dry Cleaners
Pace Project No.: 10370748

Sample: VP-1	Lab ID: 10370748001	Collected: 11/17/16 12:57	Received: 11/18/16 09:20	Matrix: Air					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR - Ambient	Analytical Method: TO-15								
cis-1,2-Dichloroethene	<0.33	ug/m3	1.1	0.33	1.34		11/22/16 17:36	156-59-2	
trans-1,2-Dichloroethene	<0.51	ug/m3	1.1	0.51	1.34		11/22/16 17:36	156-60-5	
Tetrachloroethene	175	ug/m3	0.92	0.37	1.34		11/22/16 17:36	127-18-4	
Trichloroethene	<0.37	ug/m3	0.74	0.37	1.34		11/22/16 17:36	79-01-6	
Vinyl chloride	<0.26	ug/m3	0.35	0.26	1.34		11/22/16 17:36	75-01-4	
Sample: VP-2	Lab ID: 10370748002	Collected: 11/17/16 11:55	Received: 11/18/16 09:20	Matrix: Air					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR - Ambient	Analytical Method: TO-15								
cis-1,2-Dichloroethene	<0.33	ug/m3	1.1	0.33	1.34		11/22/16 18:07	156-59-2	
trans-1,2-Dichloroethene	<0.51	ug/m3	1.1	0.51	1.34		11/22/16 18:07	156-60-5	
Tetrachloroethene	1150	ug/m3	9.2	3.7	13.4		11/23/16 12:37	127-18-4	
Trichloroethene	<0.37	ug/m3	0.74	0.37	1.34		11/22/16 18:07	79-01-6	
Vinyl chloride	<0.26	ug/m3	0.35	0.26	1.34		11/22/16 18:07	75-01-4	
Sample: VP-3	Lab ID: 10370748003	Collected: 11/17/16 12:07	Received: 11/18/16 09:20	Matrix: Air					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR - Ambient	Analytical Method: TO-15								
cis-1,2-Dichloroethene	<0.33	ug/m3	1.1	0.33	1.34		11/22/16 18:42	156-59-2	
trans-1,2-Dichloroethene	<0.51	ug/m3	1.1	0.51	1.34		11/22/16 18:42	156-60-5	
Tetrachloroethene	188	ug/m3	0.92	0.37	1.34		11/22/16 18:42	127-18-4	
Trichloroethene	1.1	ug/m3	0.74	0.37	1.34		11/22/16 18:42	79-01-6	
Vinyl chloride	<0.26	ug/m3	0.35	0.26	1.34		11/22/16 18:42	75-01-4	
Sample: VP-4	Lab ID: 10370748004	Collected: 11/17/16 13:20	Received: 11/18/16 09:20	Matrix: Air					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR - Ambient	Analytical Method: TO-15								
cis-1,2-Dichloroethene	<0.33	ug/m3	1.1	0.33	1.34		11/22/16 19:49	156-59-2	
trans-1,2-Dichloroethene	<0.51	ug/m3	1.1	0.51	1.34		11/22/16 19:49	156-60-5	
Tetrachloroethene	149	ug/m3	0.92	0.37	1.34		11/22/16 19:49	127-18-4	
Trichloroethene	0.52J	ug/m3	0.74	0.37	1.34		11/22/16 19:49	79-01-6	
Vinyl chloride	<0.26	ug/m3	0.35	0.26	1.34		11/22/16 19:49	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 42-1-37409 United Dry Cleaners

Pace Project No.: 10370748

QC Batch:	448617	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	TO15 MSV AIR - AMBIENT
Associated Lab Samples:	10370748001, 10370748002, 10370748003, 10370748004		

METHOD BLANK: 2455656 Matrix: Air

Associated Lab Samples: 10370748001, 10370748002, 10370748003, 10370748004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.25	0.81	11/22/16 17:06	
Tetrachloroethene	ug/m3	<0.28	0.69	11/22/16 17:06	
trans-1,2-Dichloroethene	ug/m3	<0.38	0.81	11/22/16 17:06	
Trichloroethene	ug/m3	<0.28	0.55	11/22/16 17:06	
Vinyl chloride	ug/m3	<0.20	0.26	11/22/16 17:06	

LABORATORY CONTROL SAMPLE: 2455657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	43.9	36.2	82	65-139	
Tetrachloroethene	ug/m3	72.4	57.5	79	60-142	
trans-1,2-Dichloroethene	ug/m3	41.9	36.6	87	67-137	
Trichloroethene	ug/m3	57.9	47.1	81	60-144	
Vinyl chloride	ug/m3	27	23.3	86	63-135	

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

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QUALIFIERS

Project: 42-1-37409 United Dry Cleaners
Pace Project No.: 10370748

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 42-1-37409 United Dry Cleaners
 Pace Project No.: 10370748

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10370748001	VP-1	TO-15	448617		
10370748002	VP-2	TO-15	448617		
10370748003	VP-3	TO-15	448617		
10370748004	VP-4	TO-15	448617		

REPORT OF LABORATORY ANALYSIS

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

10370748

Section A Required Client Information:

Company: SHANNON & WILSON
Address: 6506 SCHROEDER ROAD
MADISON, WI
Email To: shanw@shanonwilson.com
Phone: 608 1442-5223

Section B Required Project Information:

Report To: MARK McCULLOCH
Copy To:
Purchase Order No.:
Project Name: UNITED DRY RECYCLERS
Project Number: 42-1-37407
Requested Due Date/TAT:

Section C Invoice Information:

Attention: MARK McCULLOCH
Company Name: SHANNON & WILSON, INC.
Address: 6506 SCHROEDER ROAD
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

22198

Page: 1 of 1

Program

UST Superfund Emissions Clean Air Act
 Voluntary Clean Up Dry Clean RCRA Other

Reporting Units
ug/m³ mg/m³
PPBV PPMV
Other

Location of Sampling by State _____

Report Level II. III. IV. Other

Method:

PMT0
3C-Fixed Gas (%)
TO3
TO3M (Methane)
TO4 (PCBs)
TO12 (PAHs)
TO14
TO15
TO15 Short Line

Pace Lab ID

'Section D Required Client Information

AIR SAMPLE ID

Sample IDs MUST BE UNIQUE

ITEM #	Valid Media Codes	MEDIA CODE	PID Readings (Client only)	COLLECTED				Summa Can Number	Flow Control Number
	MEDIA	CODE		COMPOSITE START END/GRAB		COMPOSITE -		Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)
				DATE	TIME	DATE	TIME		
1	ELC	-	11-17-16 1157	11-17-16	1257	29	0	1593	FC2876
2		-	11-17-16 1055	11-17-16	1155	30	0	1285	FC0923
3		-	11-17-16 1107	11-17-16	1207	27	0	2748	FC0777
4		-	11-17-16 1222	11-17-16	1320	30	0	2354	FC1115
5									
6									
7									
8									
9									
10									
11									
12									

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
mark mcculloch	11-17-16	1700	FED EX	11-17-16	1700	
			mark mcculloch	11-18-16	0920	AMB Y/N
						Y/N Y/N
						Y/N Y/N
						Y/N Y/N

SAMPLER NAME AND SIGNATURE

PRINT NAME OF SAMPLER:

SIGNATURE OF SAMPLER:

DATE Signed (MM/DD/YY):

11-17-16

ORIGINAL

Phone: 612.607.6386

FC046Rev.01, 03Feb2010



Pace Analytical Services, Inc.
1700 Elm Street – Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: Shannon & Wilson, Inc.
Phone: (920)374-2034

Lab Project Number: 10370748
Project Name: 42-1-37409 United Dry Cleaners

Lab Sample No: 10370748001
Client Sample ID: VP-1

ProjSampleNum: 10370748001
Matrix: Air

Date Collected: 11/17/16 12:57
Date Received: 11/18/16 9:20

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.27	1.34	11/22/16 17:36	NCK	156-59-2
Tetrachloroethene	25.4	ppbv	0.13	1.34	11/22/16 17:36	NCK	127-18-4
trans-1,2-Dichloroethene	<0.13	ppbv	0.27	1.34	11/22/16 17:36	NCK	156-60-5
Trichloroethene	<0.068	ppbv	0.14	1.34	11/22/16 17:36	NCK	79-01-6
Vinyl chloride	<0.1	ppbv	0.13	1.34	11/22/16 17:36	NCK	75-01-4

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Date: 11/30/2016

Units Conversion Request

Page 1



Pace Analytical Services, Inc.
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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: Shannon & Wilson, Inc.
Phone: (920)374-2034

Lab Project Number: 10370748
Project Name: 42-1-37409 United Dry Cleaners

Lab Sample No: 10370748002
Client Sample ID: VP-2

ProjSampleNum: 10370748002
Matrix: Air

Date Collected: 11/17/16 11:55
Date Received: 11/18/16 9:20

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.27	1.34	11/22/16 18:07	NCK	156-59-2
Tetrachloroethene	167	ppbv	1.3	13.4	11/23/16 12:37	NCK	127-18-4
trans-1,2-Dichloroethene	<0.13	ppbv	0.27	1.34	11/22/16 18:07	NCK	156-60-5
Trichloroethene	<0.068	ppbv	0.14	1.34	11/22/16 18:07	NCK	79-01-6
Vinyl chloride	<0.1	ppbv	0.13	1.34	11/22/16 18:07	NCK	75-01-4

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Date: 11/30/2016

Units Conversion Request

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Pace Analytical Services, Inc.
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Minneapolis, MN 55414
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ANALYTICAL RESULTS

Client: Shannon & Wilson, Inc.
Phone: (920)374-2034

Lab Project Number: 10370748
Project Name: 42-1-37409 United Dry Cleaners

Lab Sample No: 10370748003
Client Sample ID: VP-3

ProjSampleNum: 10370748003
Matrix: Air

Date Collected: 11/17/16 12:07
Date Received: 11/18/16 9:20

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.27	1.34	11/22/16 18:42	NCK	156-59-2
Tetrachloroethene	27.3	ppbv	0.13	1.34	11/22/16 18:42	NCK	127-18-4
trans-1,2-Dichloroethene	<0.13	ppbv	0.27	1.34	11/22/16 18:42	NCK	156-60-5
Trichloroethene	0.2	ppbv	0.14	1.34	11/22/16 18:42	NCK	79-01-6
Vinyl chloride	<0.1	ppbv	0.13	1.34	11/22/16 18:42	NCK	75-01-4

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Date: 11/30/2016

Units Conversion Request

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Pace Analytical Services, Inc.
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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

ANALYTICAL RESULTS

Client: Shannon & Wilson, Inc.
Phone: (920)374-2034

Lab Project Number: 10370748
Project Name: 42-1-37409 United Dry Cleaners

Lab Sample No: 10370748004
Client Sample ID: VP-4

ProjSampleNum: 10370748004
Matrix: Air

Date Collected: 11/17/16 13:20
Date Received: 11/18/16 9:20

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.27	1.34	11/22/16 19:49	NCK	156-59-2
Tetrachloroethene	21.6	ppbv	0.13	1.34	11/22/16 19:49	NCK	127-18-4
trans-1,2-Dichloroethene	<0.13	ppbv	0.27	1.34	11/22/16 19:49	NCK	156-60-5
Trichloroethene	0.095J	ppbv	0.14	1.34	11/22/16 19:49	NCK	79-01-6
Vinyl chloride	<0.1	ppbv	0.13	1.34	11/22/16 19:49	NCK	75-01-4

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT

Date: 11/30/2016

Units Conversion Request

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Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Client: Shannon & Wilson, Inc.
Phone: (920)374-2034

Lab Project Number: 10370748
Project Name: 42-1-37409 United Dry Cleaners

PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT

Units Conversion Request

Date: 11/30/2016

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