



June 16, 2022

Mike Gutteter
Deep Water, LLC
808 Main St W
Ashland, Wisconsin 54806

RE: Limited Phase II Site Investigation Report
802 Main St W
Ashland, Wisconsin 54806

Dear Sir:

Lord and Winter, LLC (Lord and Winter) is pleased to report to Deep Water, LLC (Client) on the results of a Limited Phase II Site Investigation of 802 Main St W, Ashland, Wisconsin (Subject Property; Figure 1). The results of this report are the opinions of Lord and Winter and represent the opinions of one or more Lord and Winter professionals.

INTRODUCTION

Site history and land use for the subject property are described below.

Subject Property	Specific Use Description	Residential or Commercial?
Current Use	Dry Cleaner Pickup Location	Commercial
Key Past Use	Suspect Dry Cleaner	Commercial
Future Planned Use	Unknown	Commercial



Recognized Environmental Conditions (RECs) identified during a Phase I Environmental Site Assessment are summarized below. A complete description of adjacent property land use and previous property assessments may also be found in the Phase I Environmental Site Assessment dated February 4, 2022.

- REC 1: The City Directory Database Search found that the Subject Property was named One Hour Drycleaners from 1981-1987. Given the name, it is likely that halogenated solvents like tetrachloroethylene and trichloroethylene would have been used in normal operations during the first ±6 years
- REC 2: A Firestone Warehouse was shown with gasoline tanks ±70 ft E of the Subject Property. There are no records for these tanks, nor their closure. It is unknown if the Firestone Warehouse was used for auto repair. If the site was used for auto repair, petroleum products like greases, solvents, and oils would have been used in daily operations.
- REC 3: A Site Investigation undertaken at Anna Marie Designs was granted closure in 2003. Soil vapor standards were applied to remediation sites in 2013. Since closure happened in 2003, it is unlikely that soil vapor samples were collected.
- REC 4: The China Laundry only appears in the 1895 Fire Insurance Map (FIM) ±80 ft N of the Subject Property downgradient. It is not present in the 1890, nor the 1901 FIM maps. This means that there is a ±9-year window for the China Laundry to have operated. It is likely that petroleum products like kerosene and benzene would have been used in normal operations.

The objectives of the Phase II Site Investigation are stated as questions and are listed below:

Phase II SI Objective	Question To Be Addressed
Objective 1	Have RECs resulted in a hazardous substance release at the Subject Property?
Objective 2	If yes, has environmental media been impacted above screening levels that are set at concentrations protective of human health and the environment for <i>commercial property</i> land use?



This report in part generally follows methods set in ASTM 1903-11, "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process. The following attachments are included as supporting documentation for the Phase II Site Investigation Report.

Identifier	Title
Attachment A	Tables
Attachment B	Figures
Attachment C	Soil Visual Observations
Attachment D	Soil Vapor Collection Logs
Attachment E	Soil Analytical Results
Attachment F	Soil Analytical Results

BACKGROUND

The suspect source areas and the potential for migration are identified for each REC below.

- Source Areas – On site suspect dry cleaner PCE sources would be expected to be centered underneath dry cleaning equipment under the slab of the existing building and perhaps outside the back door of the facility if there was dumping of spent solvents. Off-site sources would be expected in an upgradient groundwater flow direction on the south side of the parcel.
- Potential for Migration – Off-site upgradient migration exists onto the parcel from the south. Off-site migration potential exists from on-site sources following topographic and presumed groundwater flow path to the north. Sampling to the north of suspect sources was hindered due to the building being constructed to the north parcel boundary and the scope of work which restricts sampling to onsite areas.

The Subject Property features, occupied structures and their foundations are described below.

Features or Structure	Foundation Type	Depth of Foundation
Commercial Structure 1,300 SF	Slab	4 to 6 inch thick slab; no basement



Physical setting of the Subject Property is described below.

Regional Setting	Regional Setting
Topography	648.57 FT MSL, sloped NNW
Hydrology	Lake Superior lies N of Site; Urban area with stormwater infrastructure
Geology	Bayfield Group; Chequamegon Sandstone
Hydrogeology	NNW Presumed

COMPLETED SAMPLING PLAN AND RATIONALE

The investigation of the Subject Property was completed by the following organizations.

Role	Organization	Address	Scope of Work
Environmental Consultant	Lord and Winter, LLC	11 E Superior St Suite 540 Duluth, MN 55802	On-Site Sampling, Data Analysis, Soil Vapor Drilling and Sampling, Reporting
Drilling Subconsultant	Twin Ports Testing	1301 N 3 rd St Superior, WI 54880	Soil Drilling
Analytical Subconsultant	Pace Labs	12065 Lebanon Road Mount Juliet, TN 37122	Analytical Testing
Utility Clearance Subconsultant	Contracted Through TPT	Not Applicable	Private Utility Clearance



Work on-site was completed on May 19, 2022. The completed scope of work for the Limited Phase II Site Investigation is described below. Sample locations are depicted in the attached figures in Attachment B and analytical results are included in tables in Attachment A.

SAMPLE LOCATION	SAMPLING RATIONALE	ENVIRONMENTAL MEDIA SAMPLED	ANALYTICAL TESTING
SV1	Sub Slab Vapor Intrusion Assessment	Soil Vapor	VOCs
B1	On-Site Dry Cleaner Suspected Source – Nearest building as practical	Soil Groundwater attempted but no recovery	VOCs by Method 8260B PAHs by Method 8270C-SIM RCRA Metals by Method 6010B/7471A
B2	All Off-Site RECs	Soil Groundwater attempted but no recovery	VOCs by Method 8260B PAHs by Method 8270C-SIM RCRA Metals by Method 6010B/7471A



METHODS

Soil samples were collected using industry standard procedures. Soil visual observation logs are included in Attachment C.

HANDLING	DESCRIPTION
Collection	Soil sampling was conducted with use of a truck mounted direct push drill rig equipped with a 2-inch diameter, 5-foot length stainless steel spoon and disposable acetate sleeves. Clean disposable acetate sleeves were used for each sampling interval.
Packaging, Custody, and Shipment	Samples were labeled, placed on ice, and shipped for overnight delivery to the analytical laboratory with a Chain Of Custody form completed and relinquished by the sampler.
Testing	Samples were tested using standard US EPA Methods by the analytical laboratory.
Completion	Boreholes were abandoned using bentonite chips, hydrated, and the cover replaced with asphalt or soil, as appropriate.

Soil Vapor Sampling Methods generally followed Wisconsin Administrative Code 716 and procedures identified in *Sub Slab Vapor Sampling Procedures*, RR 986 (July 2014). Soil Vapor Collection logs may be found in Attachment D.

HANDLING	DESCRIPTION
Boring / Coring	Soil vapor samples were collected sub slab in the closet of the commercial structure which is located in the general center area of the building. Soil vapor locations were advanced to 1-2 FT below slab
Vapor Well Construction	A screened stainless steel tip was exposed at the terminus of the boring and the hole sealed with hydrated bentonite. Tubing was inserted and the opening sealed.
Purging and Collection	The sample train was connected, the line purged using a syringe, and the samples gathered in a -30 mm Hgmm, 5 L, vacuum canister and collected until the soil gas entry resulted in reducing the canister vacuum to between -5 and -10 Hgmm.
Sampling Handling and Shipment	Samples were labeled with location identifier, beginning and end vacuum reading, and delivered to the analytical laboratory.
Hole Completion	Soil vapor locations were sealed following use with bentonite chips and cover replaced similar to original.



Temporary, PVC, 0.01 slotted groundwater monitoring wells were installed and allowed to recharge up to 2 hours. No recoverable groundwater was obtained from either B1 or B2.

Analytical testing methods of environmental media are described below.

METHOD NAME	ANALYTICAL METHOD USED	ENVIRONMENTAL MEDIA SAMPLED	LABORATORY
VOCs-Soil Vapor	TO-15	Soil Vapor	Pace Labs
VOCs	8260B	Soil	Pace Labs
Semi-VOCs	8270C	Soil	Pace Labs
RCRA Metals	6010B/7471A	Soil	Pace Labs

QUALIFICATIONS

Work was completed by David Winter of and Jonathan Odekirk Lord and Winter, LLC. Winter holds a Master of Science in Geology and Geochemistry from Northern Illinois University, a Bachelor of Science Degree from the University of Wisconsin at Eau Claire and is a Certified Hazardous Material Manager (Certification Number 15329). Odekirk holds a Bachelor of Science Degree in Geology from the University of Wisconsin at Green Bay and a Master of Science in Geological and Geotechnical Engineering from the University of Wisconsin – Madison.

RESULTS

Below is a discussion of the data collected in the investigation. Two bore holes were advanced; B1 and B2. Soil units encountered and their visual description are listed below.

- B1 – Surface cover (asphalt and sand) from 0-1 FT, followed by Lean Clay (CL) to 5 FT, underlain by massive fat clay (CH) from 5 to 20 FT bgs.
- B2 – Surface cover (asphalt with sand and gravel sub base) from surface to 2 FT; underlain by silt (ML) to 3 FT, underlain by massive fat clay (CL) to 20 FT bgs.

The fat clay was uniform and contained no sand stringers to 20 FT bgs.

A summary of anthropogenic impact observations are offered below.

- Field Screened Organic Vapors in Soil: In boring B1 organic vapor readings of soil samples were 28.6 ppm from 5-10 FT; 25.5 ppm from 10-15 FT; 1.1 ppm from 15-20 FT. Therefore,



organic vapor field screening suggests hydrocarbon between 5 and 15 FT bgs. No significant PID readings were observed in B2.

- Visual Observations: In B2 a 6" to 12" black fill layer occurred from 2 to 3 FT. There was no hydrocarbon odor or stain observed with it.

A summary of constituents detected above method reporting limits is listed below for each environmental media sampled.

Environmental Media	Constituents Detected Above Reporting Limit
Soil Vapor	Acetone, Benzene, Carbon Disulfide, Cyclohexane, 1,2-Dibromomethane, Ethanol, Ethylbenzene, Dichlorodifluoromethane, Heptane, N-Hexane, Methylene Chloride, 2-Butanone, 2-Propanol, Tetrachloroethene (PCE), Toluene, Trichloroethene (TCE), 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 2,2,4-Trimethylpentane, M&P-Xylene, O-Xylene
Soil	Barium, Chromium, Lead, Acetone, Chloroform, Cis-1,2-Dichloroethene, Tetrachloroethene, Trichloroethene
Groundwater	No recoverable groundwater was found; no analytical testing of groundwater

INTERPRETATIONS

Analytical results of environmental media are compared in this report section along with applicable screening levels that are set by state and federal agencies to be protective of human health. A listing of screening levels that were compared with analytical data are provided below.



MEDIA	AGENCY	PROGRAM	SCREENING LEVELS
Soil	US EPA WI DNR	Regional Screening Levels Remediation and Redevelopment	1E-06; HQ=0.1 and 1.0; Commercial/Industrial Industrial Generic RCLs (Current; 2018) GW RCLs (Current; 2018)
Organic Vapors	US EPA	EPA VISL Target Sub-Slab Near Source Soil Gas Concentration State of Wisconsin RR0136, Guidance: Wisconsin Vapor Quick Look-Up Table Indoor Air Vapor Action Levels and Vapor Risk Screening Levels (Feb 2022)	TCR=1E-06, THQ=0.1, Target Commercial/Industrial TCR=1E-05, THQ=1, Target Commercial/Industrial

Analytical testing results of sampled environmental media are compared with screening levels in the table below. Constituents detected that exceed screening levels are generally referred to as "Constituents of Concern, or COCs". Below is a summary of analytes tested that fail to meet commercial/industrial RCLs (GW RCL):

Media	COC	Location
Soil Vapor	1,2-Dibromomethane ¹ Tetrachloroethylene (PCE)	SV1 SV1
Soil	Chloroform Tetrachloroethene (PCE) Trichloroethene (TCE)	B1-10-15 B1-10-15 B1-10-15

Release area and source area COCs are discussed below to offer an opinion on whether environmental media sampled indicate whether a release has occurred due to the REC.

¹ Detected less than reporting limit, but reporting limit is higher than the VISL Standard



Release Area / Source Area	Does Sampling Location Represent Highest Probability of Location?	Was a Release or Source Area Confirmed by COC detections?	Do COC detections exceed RCLs for Industrial Properties?
REC 1 – Onsite Dry Cleaner	B1: located within 15 Ft of suspected PERC Machine Location and within 10 FT of back door of facility	Yes; PCE and TCE were detected in soil vapor and soil.	Yes, PCE and TCE exceed Soil – Protection of GW RCLs.
REC 2 – A Firestone Warehouse was shown with gasoline tanks ±70 ft E of Subject Property	B2: Located at upgradient side of Subject Property	No, the COC consortium does not reflect a significant petroleum release at the Subject Property; though minor detections did occur	No
REC 3 – Remediation site at Anna Marie Designs	B2: Located at Upgradient side of Subject Property	No, COCs failing RCLs relate to dry cleaner operations not diesel or gasoline tanks.	No
REC 4 – Downgradient Dry Cleaner	B1: closed to downgradient facility but the on site source is closest to this boring	Unknown	Unknown for this suspected source

COMPLETION STATUS OF OBJECTIVES

The following opinions are offered to address study objectives:

Study Objective	Question To Be Addressed / Opinion Offered Based Upon Data
Objective 1	<p>Have RECs resulted in a release at the Subject Property?</p> <p>Opinion: Yes, the onsite dry cleaner identified in the Phase I ESA Report is a suspect source for PCE and TCE at the Subject Property; PCE, TCE were found in soil vapor and soil. Twenty-one VOC constituents were detected in soil vapor. Six constituents related to the dry cleaner were detected in soil.</p>
Objective 2	If yes, has environmental media been impacted above screening levels that are set at concentrations protective of human health and the environment for commercial/industrial property land use?



Study Objective	Question To Be Addressed / Opinion Offered Based Upon Data
	Opinion: Yes, PCE, TCE, and Chloroform were found at concentrations in soil at concentrations exceeding the State of Wisconsin Residual Cleanup Level (RCL).

A Conceptual Site Model (CSM) is a written or illustrated representation of the physical, chemical, and biological processes that control the transport, migration, and potential impacts of contamination to human and ecological receptors. Below is an outline of the Conceptual Site Model using data obtained from this investigation.

Known and Potential Sources	Impacted Media	Contaminants of Concern	Exposure Route	Receptors	
				Current	Future
Sources from On-Site Historical Auto Repair Operations and Off-site Lead Sources	Soil Vapor	None exceeding State of Wisconsin VISL; but PCE and TCE are a concern likely requiring further investigation by State of Wisconsin	Inhalation via vapor intrusion if concentrations exceed standards	Commercial Workers	Commercial Workers
	Soil	PCE, TCE, Chloroform	Ingestion of Groundwater	None; municipal water available	None; municipal water available
	Groundwater	Unknown; groundwater not recoverable to 20 FT; the limits of this investigation	Unknown	Unknown	Unknown



CONCLUSIONS

Data collected from the Limited Phase II Site Investigation testing and analysis suggest the following conclusions:

CONCLUSION NUMBER	CONCLUSION
1	Data suggest that RECs identified at the Subject Property have resulted in a release to environmental media. Twenty-one VOC COCs were detected in soil vapor and six VOC constituents related to dry cleaner operations were detected in soil.
2	Data suggest that Constituents of Concern (COCs) present in environmental soil do not meet GW RCLs for commercial/industrial property. COCs failing commercial/industrial GW RCLs in soil are PCE, TCE, and Chloroform .
3	The soil results reported here provide evidence of a hazardous substance discharge that <u>by law needs to be reported to the State of Wisconsin – DNR</u> . The reporting requirement rests with the responsible party (i.e., the causer and/or party that owns the property where the discharge occurred). A link for reporting the release is offered here: https://dnr.wisconsin.gov/topic/Brownfields/Submittal.html

LIMITATIONS AND DISCLAIMER

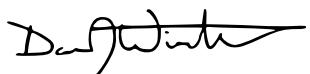
Lord and Winter includes the following limitations and disclaimer for this report.

LIMITATION OR DISCLAIMER	DESCRIPTION
Third Party Use	Third party use of this report is not authorized.
Location Specific	Sample and observation data from this report are location based and may or may not represent the entire site; sampling the entire site would include a more comprehensive sampling plan and increased budget that was not authorized by the Client.
Opinions	The statements, interpretations, and conclusions of this report are the opinions of Lord and Winter and one or more of its staff.
Agency Concurrence	Only local, state, and federal agencies can offer regulatory compliance status and therefore the Client is encouraged to confirm opinions found in this report with local, state, or federal agencies as appropriate.
Limitations	This report is subject to all the limitations, terms, and conditions set forth between the Client and Lord and Winter in the signed proposal.



Thank you for the opportunity to work with you. Please feel free to contact us with any questions.

Sincerely,
Lord and Winter

A handwritten signature in black ink, appearing to read "David J. Winter".

David J. Winter, PMP CHMM
President



ATTACHMENT A - TABLES

Client Sample ID				Guidance: Wisconsin Vapor Quick Look-Up Table (Commercial- Small; 1E-05 THQ=1) Vapor Risk Screening Levels (Feb 2022)	SV1	
Date Collected					05/19/2022	
Method	Analyte	Units	VISL Comm Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) (May 2019)		Result	Qualifier
TO-15	ACETONE	ug/m3	451000		333	
TO-15	BENZENE	ug/m3	52	520	3.87	
TO-15	CARBON DISULFIDE	ug/m3	10200		7.97	
TO-15	CYCLOHEXANE	ug/m3	87600		5.17	
TO-15	1,2-DIBROMOETHANE	ug/m3	1		<1.85	
TO-15	ETHANOL	ug/m3			34.3	
TO-15	ETHYLBENZENE	ug/m3	164	1600	3.03	
TO-15	DICHLORODIFLUOROMETHANE	ug/m3	1460	15000	2.26	
TO-15	HEPTANE	ug/m3	5840		4.95	
TO-15	N-HEXANE	ug/m3	10200		9.84	
TO-15	METHYLENE CHLORIDE	ug/m3	8760	88000	4.76	
TO-15	2-BUTANONE (MEK)	ug/m3	73000		13.2	
TO-15	4-METHYL-2-PENTANONE (MIBK)	ug/m3	43800		2.69	
TO-15	2-PROPANOL	ug/m3	2920		1230	
TO-15	TETRACHLOROETHENE (PCE)	ug/m3	584	5800	747	
TO-15	TOLUENE	ug/m3	73000		12.5	
TO-15	TRICHLOROETHENE (TCE)	ug/m3	29	290	<1.22	
TO-15	1,2,4-TRIMETHYLBENZENE	ug/m3	876		4.01	
TO-15	1,3,5-TRIMETHYLBENZENE	ug/m3	876		1.56	
TO-15	2,2,4-TRIMETHYLPENTANE	ug/m3			8.97	
TO-15	M&P-XYLENE	ug/m3	1460	15000	11	
TO-15	O-XYLENE	ug/m3	1460		6.29	

Table 2
Summary of Soil Analytical Detections

Lab Sample ID					L1496601-01	L1496601-02	
Client Sample ID					B1-10-15	B2-10-15	
Date Collected					05/19/2022	05/19/2022	
Method	Analyte	Units	GW Protective RCLs	Wisconsin Generic Industrial DC RCLs Calculated from	US EPA RSL Ind Soil TR 1e-06 THQ 1 MAY2021	Result	Qualifier
6010B	BARIUM	mg/kg	164.8	100000	220000	84.4	129
6010B	CHROMIUM	mg/kg	360000	NS	NS	22.7	24.8
6010B	LEAD	mg/kg	27	800	800	3.86	5.22
8260B	ACETONE	mg/kg	3.67	100000	670000	0.164	<0.122
8260B	CHLOROFORM	mg/kg	0.0033	1.98	1.4	0.0236	<0.00343
8260B	CIS-1,2-DICHLOROETHENE	mg/kg	0.0412	2340	2300	0.0073	<0.00245
8260B	TETRACHLOROETHENE (PCE)	mg/kg	0.0045	145	100	35.6	0.0143
8260B	TRICHLOROETHENE (TCE)	mg/kg	0.0036	8.41	6	0.102	<0.00195



ATTACHMENT B - FIGURES



LIMITED PHASE II SITE INVESTIGATION

802 MAIN ST W
ASHLAND, WI 54880

Legend

■ Parcel Boundary

JUNE 2022





0 600 1,200 ft

FIGURE 2
SITE LOCATION vs USGS TOPO

LIMITED PHASE II SITE INVESTIGATION

802 MAIN ST W
ASHLAND, WI 54880

Legend

■ Parcel Boundary

JUNE 2022



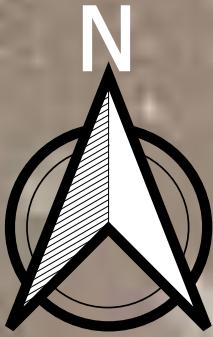


FIGURE 3

SITE LOCATION vs SAMPLE LOCATIONS

LIMITED PHASE II SI

802 MAIN ST W
ASHLAND, WI 54880

Legend

- Parcel Boundary
- Soil Samples
- ◆ Soil Vapor Sample

0 35 70 ft



JUNE 2022

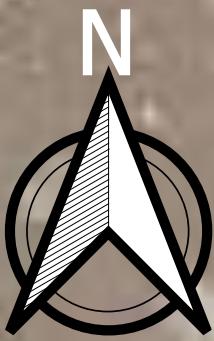


FIGURE 4

0 35 70 ft

SITE LOCATION vs COMMERCIAL EXCEEDANCES

LIMITED PHASE II SI

802 MAIN ST W
ASHLAND, WI 54880

Legend

- Parcel Boundary
- Soil Samples
- Soil Vapor Sample

JUNE 2022





ATTACHMENT C – SOIL VISUAL OBSERVATIONS



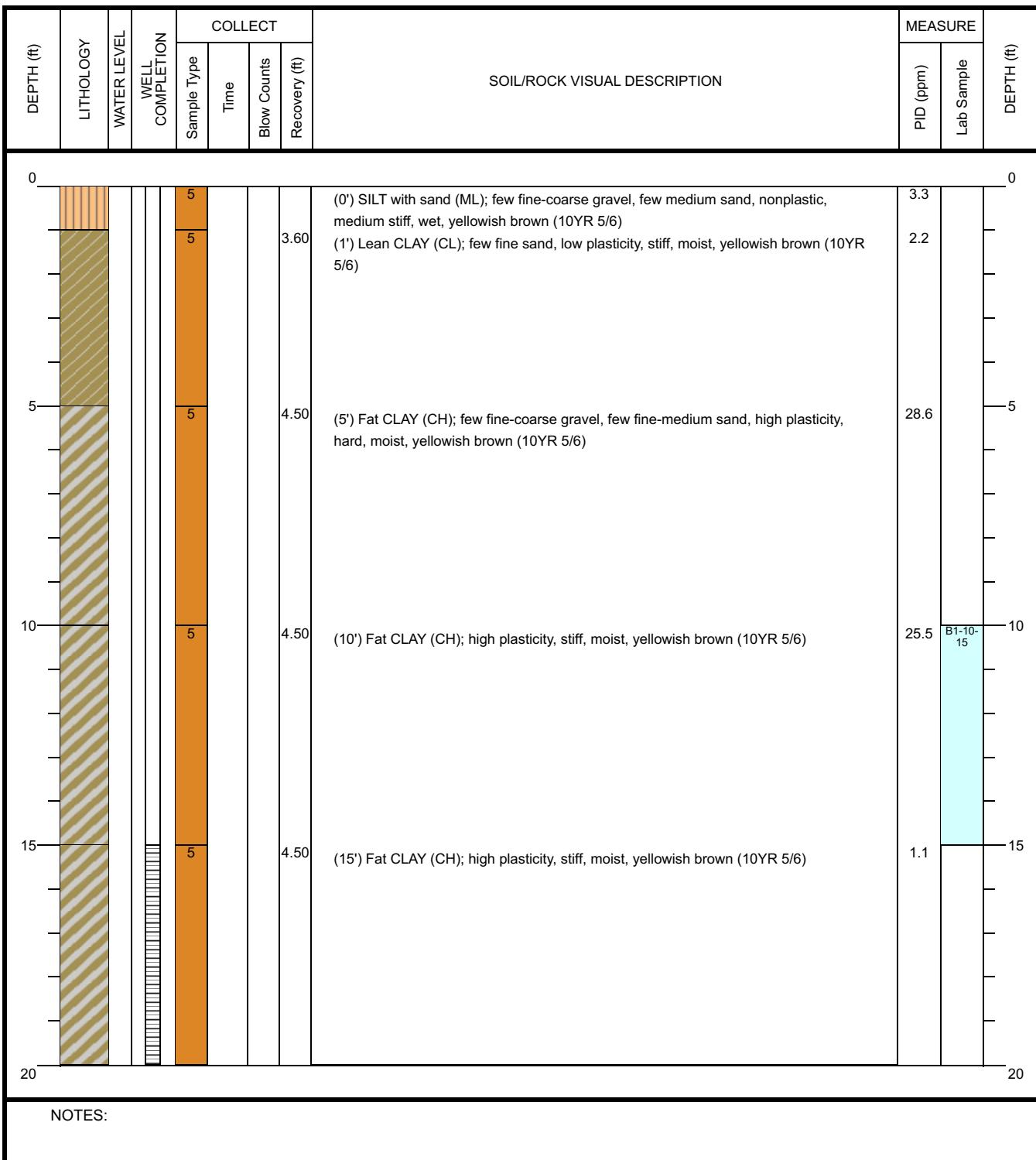
Client: Deep Water LLC
Project: 802 Main St W
Address: 802 Main St W, Ashland, WI

WELL LOG
Well No. B1
Page: 1 of 2

Drilling Start Date: 05/19/2022 9:47
Drilling End Date: 05/19/2022 11:26
Drilling Company: Twin Ports Testing
Drilling Method: Direct Push
Drilling Equipment: Geoprobe 6635
Driller: Jim Johnson
Logged By: David Winter

Boring Depth (ft): 20
Boring Diameter (in): 2.00
Sampling Method(s): 5 - 5 FT SS Core w/Acetate Sleeve
DTW During Drilling (ft): N/A
DTW After Drilling (ft): N/A
Ground Surface Elev. (ft): N/A
Location (Lat, Long): 46.58738, -90.89188

Well Depth (ft): 20
Well Diameter (in): 1
Screen Slot (in): 0.010
Riser Material: Sch 40 PVC
Screen Material: Sch 40 PVC Slotted
Seal Material(s):
Filter Pack:





Client: Deep Water LLC
Project: 802 Main St W
Address: 802 Main St W, Ashland, WI

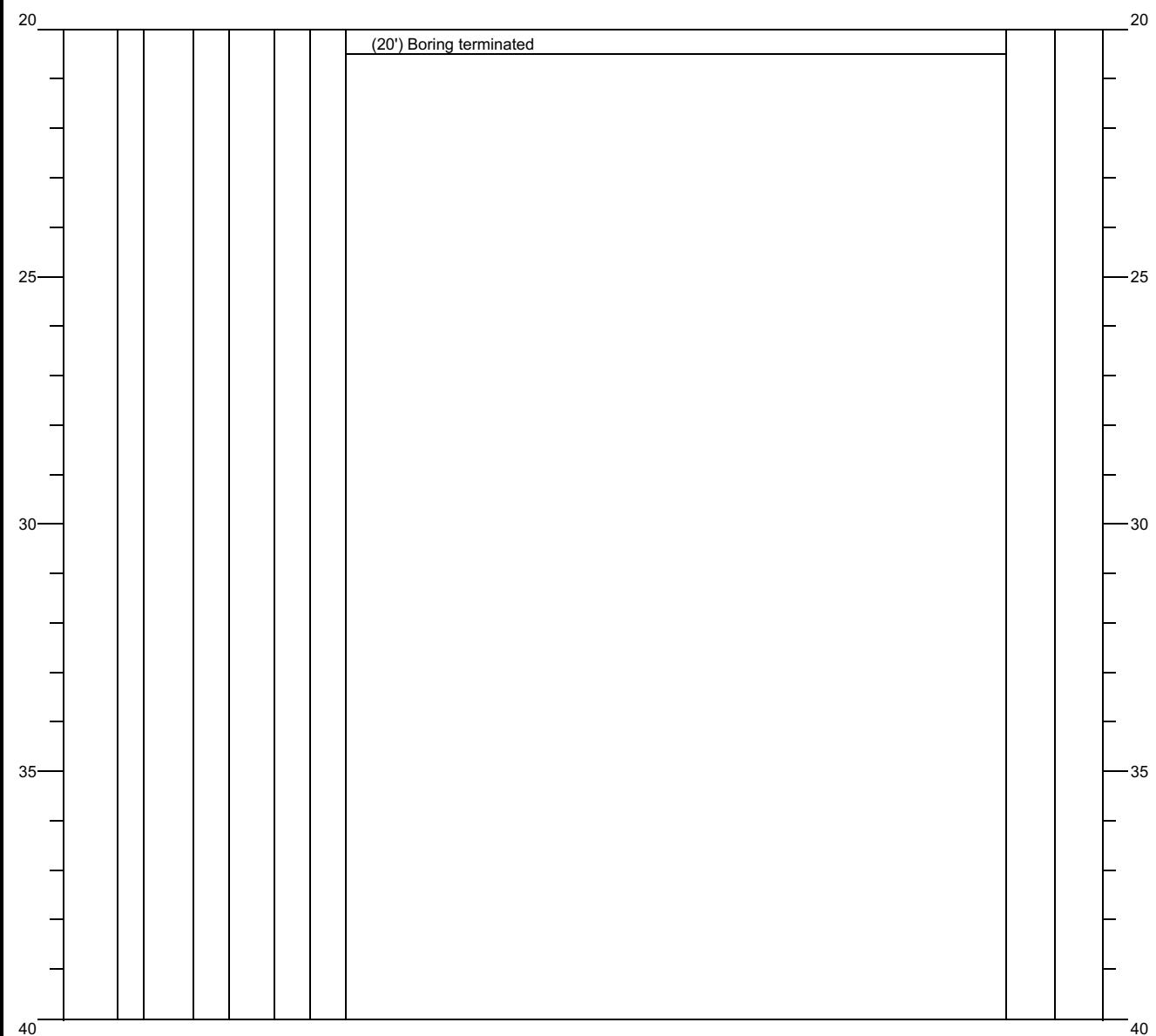
WELL LOG
Well No. B1
Page: 2 of 2

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Screen Slot (in): 0.010
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Screen Material: Sch 40 PVC Slotted
Seal Material(s):
Filter Pack:

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE	
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample
20								(20') Boring terminated		



NOTES:



Client: Deep Water LLC
Project: 802 Main St W
Address: 802 Main St W, Ashland, WI

WELL LOG
Well No. B2
Page: 1 of 2

Drilling Start Date: 05/19/2022 10:42

Drilling End Date: 05/19/2022 12:09

Drilling Company: Twin Ports Testing

Drilling Method: Direct Push

Drilling Equipment: Geoprobe 6635

Driller: Jim Johnson

Logged By: Zachary Coutee

Boring Depth (ft): 20

Boring Diameter (in): 2.00

Sampling Method(s):

DTW During Drilling (ft): N/A

DTW After Drilling (ft): N/A

Ground Surface Elev. (ft): N/A

Location (Lat, Long): N/A

Well Depth (ft): 20

Well Diameter (in): 1

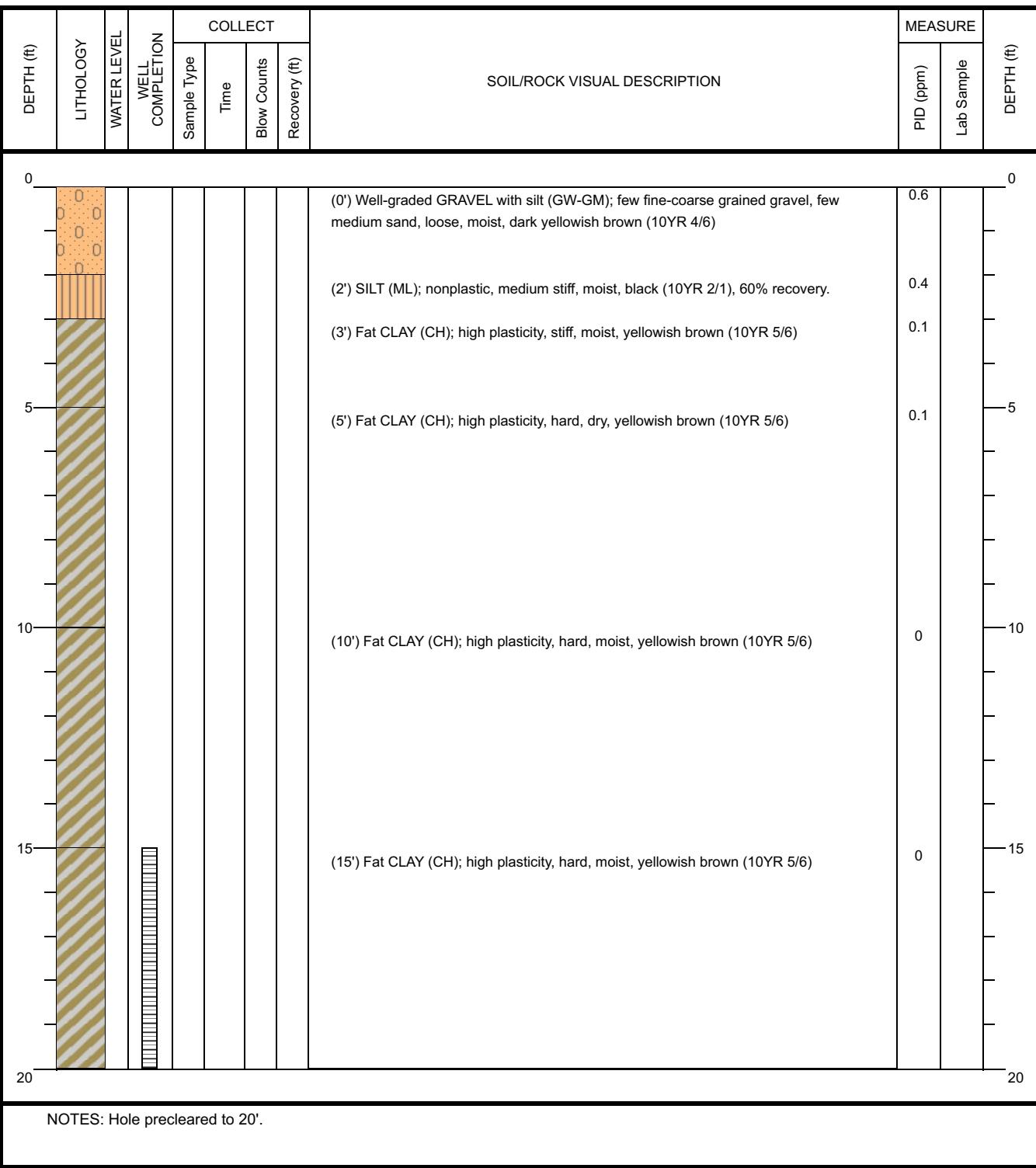
Screen Slot (in): 0.010

Riser Material:

Screen Material: Sch 40 PVC Slotted

Seal Material(s):

Filter Pack:





Client: Deep Water LLC
Project: 802 Main St W
Address: 802 Main St W, Ashland, WI

WELL LOG
Well No. B2
Page: 2 of 2

Drilling Start Date: 05/19/2022 10:42

Drilling End Date: 05/19/2022 12:09

Drilling Company: Twin Ports Testing

Drilling Method: Direct Push

Drilling Equipment: Geoprobe 6635

Driller: Jim Johnson

Logged By: Zachary Coutee

Boring Depth (ft): 20

Boring Diameter (in): 2.00

Sampling Method(s):

DTW During Drilling (ft): N/A

DTW After Drilling (ft): N/A

Ground Surface Elev. (ft): N/A

Location (Lat, Long): N/A

Well Depth (ft): 20

Well Diameter (in): 1

Screen Slot (in): 0.010

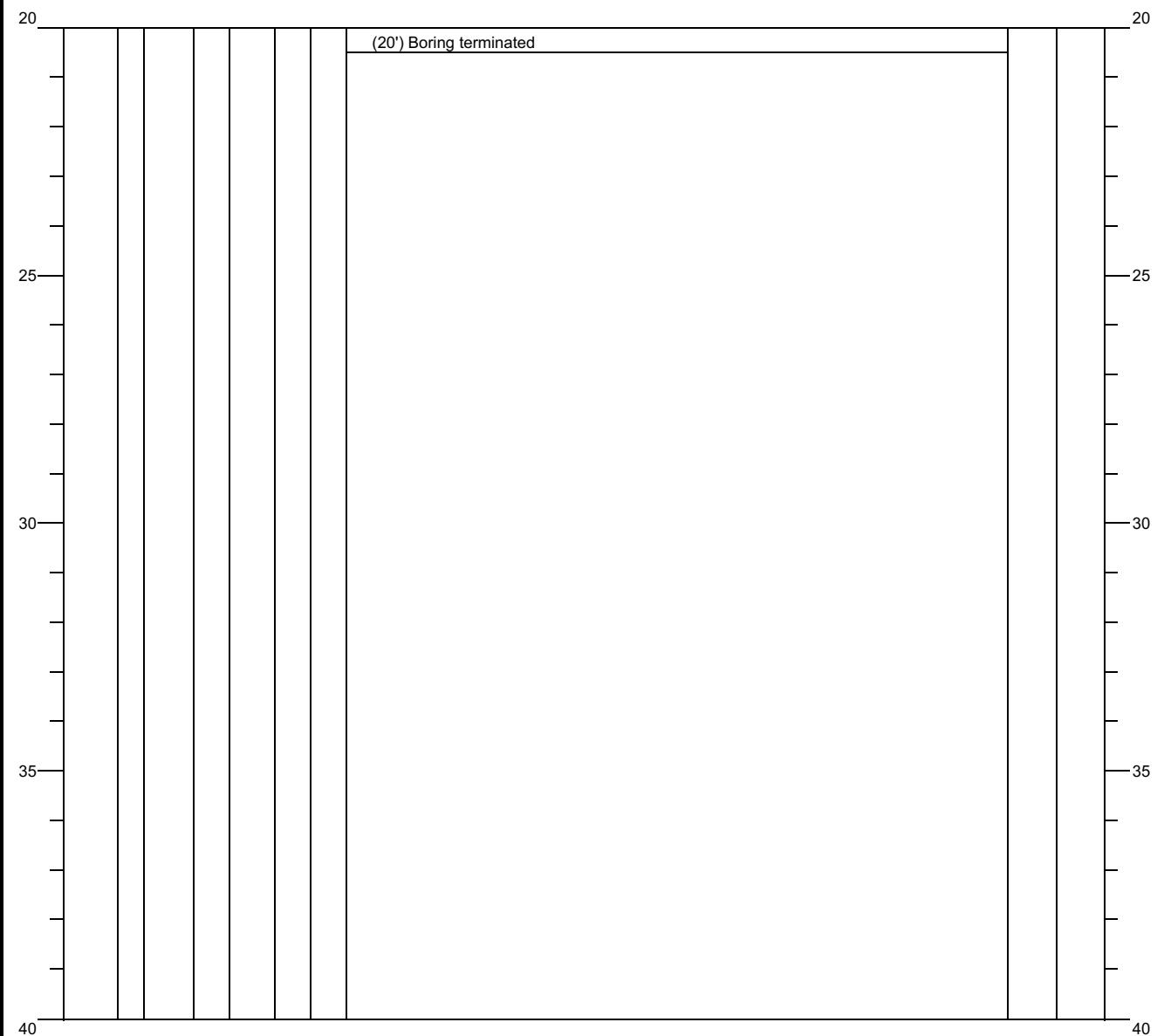
Riser Material:

Screen Material: Sch 40 PVC Slotted

Seal Material(s):

Filter Pack:

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT				SOIL/ROCK VISUAL DESCRIPTION	MEASURE	
				Sample Type	Time	Blow Counts	Recovery (ft)		PID (ppm)	Lab Sample
20								(20') Boring terminated		



NOTES: Hole precleared to 20'.



BORING AND WELL LOG LEGEND

SURFACE	Volume Descriptors
ASPHALT	Trace = <5%
CONCRETE	Few = 5-10%
FILL	Little = 15-25%
TOPSOIL	Some = 30-45%
AIR	Mostly = >=50%
ICE	
USCS	Water Levels
Well-graded GRAVEL (GW)	Water Level During Drilling
Poorly graded GRAVEL (GP)	Water Level at End of Drilling/in Completed Well
Silty GRAVEL (GM)	
Clayey GRAVEL (GC)	
Silty, Clayey GRAVEL (GC-GM)	
Well-graded GRAVEL with silt (GW-GM)	
Poorly graded GRAVEL with silt (GP-GM)	
Well-graded GRAVEL with clay (GW-GC)	
Poorly graded GRAVEL with clay (GP-GC)	
Well-graded SAND (SW)	
Poorly graded SAND (SP)	
Silty SAND (SM)	
Clayey SAND (SC)	
Silty, Clayey SAND (SC-SM)	
Well-graded SAND with silt (SW-SM)	
Poorly graded SAND with silt (SP-SM)	
Well-graded SAND with clay (SW-SC)	
Poorly graded SAND with clay (SP-SC)	
SILT (ML)	
Lean CLAY (CL)	
Silty CLAY (CL-ML)	
Organic SOIL (OL)	
Elastic SILT (MH)	
Fat CLAY (CH)	
Organic SOIL (OH)	
Organic SOIL (OL/OH)	
PEAT (PT)	
BEDROCK	
IGNEOUS Rock	
METAMORPHIC Rock	
SEDIMENTARY Rock	
WATER	
Non-USCS	Well/Boring Completion
Gravel	Cap
Sand	Riser
Silt	Screen
Clayey Silt	End Plug
Silt & Clay	Annular Seal
Clay & Silt	Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
Silty Clay	Filter Pack (Sand, Gravel, Other)
Clay	Backfill
Boulders	
Cobbles	
Peastone	
Glacial Till	
Iron Ore	
Wood	
Peat	
Saprolite	
Ash	
Waste	



ATTCHMENT D – SOIL VAPOR COLLECTION LOGS

David Winter, 11:58, 2022-05-19

Project	(611) 802 Main St W-Ashland
Created	2022-05-19 16:58:18 UTC by David Winter
Updated	2022-05-19 17:03:50 UTC by David Winter
Location	46.58738288281062, -90.89199400145759
Date	2022-05-19
Time	11:58
Sample Name	David Winter

Photo of Sample Location



Regulator Number	010997
Tracer Application	No
Pre-Sample Vacuum Reading	-22
Pump Evacuate Line?	Yes

Photos of Pump Evacuate Line



Sample Start Time 1158

Initial Regulator Reading -22

Photo of Initial Regulator Reading



Sample End Time	1203
Final Regulator Reading	-5
Photo of Final Regulator Reading	



ATTCHMENT E – SOIL ANALYTICAL RESULTS



ANALYTICAL REPORT

June 06, 2022

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Lord and Winter, LLC

Sample Delivery Group: L1496601
Samples Received: 05/20/2022
Project Number: 611
Description: 802 W Main-Ashland
Site: ASHLAND, WISCONSIN
Report To: Jonathan Odekirk
231 Public Square
Suite 300 - PMB44
Franklin, TN 37064

Entire Report Reviewed By:

Jennifer Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Qc: Quality Control Summary	11	 ⁸ Al
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SAMPLE SUMMARY

B1-10-15 L1496601-01 Solid

Collected by
D Winter Collected date/time
05/19/22 10:30 Received date/time
05/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1869889	1	05/26/22 09:33	05/26/22 09:50	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1870773	1	05/31/22 08:07	06/01/22 11:45	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1871097	1	06/01/22 09:58	06/03/22 02:51	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1871097	1	06/01/22 09:58	06/03/22 17:33	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1869812	1	05/19/22 10:30	05/27/22 09:07	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1870766	200	05/19/22 10:30	05/27/22 13:59	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1872161	1	05/31/22 17:07	06/01/22 02:31	AO	Mt. Juliet, TN

B2-10-15 L1496601-02 Solid

Collected by
D Winter Collected date/time
05/19/22 11:30 Received date/time
05/20/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1869889	1	05/26/22 09:33	05/26/22 09:50	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1870773	1	05/31/22 08:07	06/01/22 11:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1871097	1	06/01/22 09:58	06/03/22 03:05	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1871097	1	06/01/22 09:58	06/03/22 17:46	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1870323	1	05/19/22 11:30	05/27/22 08:39	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1872161	1	05/31/22 17:07	06/01/22 02:48	AO	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ Al

⁹ Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer Gambill
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC

Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	78.5		1	05/26/2022 09:50	WG1869889

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Mercury by Method 7471A

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	ND		0.0600	1	06/01/2022 11:45	WG1870773

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	ND		1.73	1	06/03/2022 02:51	WG1871097
Barium	84.4		0.284	1	06/03/2022 02:51	WG1871097
Cadmium	ND		0.157	1	06/03/2022 02:51	WG1871097
Chromium	22.7		0.443	1	06/03/2022 17:33	WG1871097
Lead	3.86		0.693	1	06/03/2022 02:51	WG1871097
Selenium	ND		2.55	1	06/03/2022 02:51	WG1871097
Silver	ND		0.423	1	06/03/2022 17:33	WG1871097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	0.164		0.122	1	05/27/2022 09:07	WG1869812
Acrylonitrile	ND		0.0120	1	05/27/2022 09:07	WG1869812
Benzene	ND		0.00156	1	05/27/2022 09:07	WG1869812
Bromobenzene	ND	J4	0.00300	1	05/27/2022 09:07	WG1869812
Bromodichloromethane	ND		0.00242	1	05/27/2022 09:07	WG1869812
Bromoform	ND		0.00390	1	05/27/2022 09:07	WG1869812
Bromomethane	ND		0.00657	1	05/27/2022 09:07	WG1869812
n-Butylbenzene	ND		0.0175	1	05/27/2022 09:07	WG1869812
sec-Butylbenzene	ND		0.00960	1	05/27/2022 09:07	WG1869812
tert-Butylbenzene	ND		0.00650	1	05/27/2022 09:07	WG1869812
Carbon tetrachloride	ND		0.00299	1	05/27/2022 09:07	WG1869812
Chlorobenzene	ND		0.000700	1	05/27/2022 09:07	WG1869812
Chlorodibromomethane	ND		0.00204	1	05/27/2022 09:07	WG1869812
Chloroethane	ND		0.00567	1	05/27/2022 09:07	WG1869812
Chloroform	0.0236		0.00343	1	05/27/2022 09:07	WG1869812
Chloromethane	ND		0.0145	1	05/27/2022 09:07	WG1869812
2-Chlorotoluene	ND		0.00288	1	05/27/2022 09:07	WG1869812
4-Chlorotoluene	ND		0.00150	1	05/27/2022 09:07	WG1869812
1,2-Dibromo-3-Chloropropane	ND		0.0130	1	05/27/2022 09:07	WG1869812
1,2-Dibromoethane	ND		0.00216	1	05/27/2022 09:07	WG1869812
Dibromomethane	ND		0.00250	1	05/27/2022 09:07	WG1869812
1,2-Dichlorobenzene	ND		0.00142	1	05/27/2022 09:07	WG1869812
1,3-Dichlorobenzene	ND		0.00200	1	05/27/2022 09:07	WG1869812
1,4-Dichlorobenzene	ND		0.00233	1	05/27/2022 09:07	WG1869812
Dichlorodifluoromethane	ND		0.00537	1	05/27/2022 09:07	WG1869812
1,1-Dichloroethane	ND		0.00164	1	05/27/2022 09:07	WG1869812
1,2-Dichloroethane	ND		0.00216	1	05/27/2022 09:07	WG1869812
1,1-Dichloroethene	ND		0.00202	1	05/27/2022 09:07	WG1869812
cis-1,2-Dichloroethene	0.00732		0.00245	1	05/27/2022 09:07	WG1869812
trans-1,2-Dichloroethene	ND		0.00347	1	05/27/2022 09:07	WG1869812
1,2-Dichloropropane	ND		0.00473	1	05/27/2022 09:07	WG1869812
1,1-Dichloropropene	ND		0.00270	1	05/27/2022 09:07	WG1869812
1,3-Dichloropropane	ND		0.00167	1	05/27/2022 09:07	WG1869812

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch	
cis-1,3-Dichloropropene	ND		0.00252	1	05/27/2022 09:07	WG1869812	¹ Cp
trans-1,3-Dichloropropene	ND		0.00380	1	05/27/2022 09:07	WG1869812	² Tc
2,2-Dichloropropane	ND		0.00460	1	05/27/2022 09:07	WG1869812	³ Ss
Di-isopropyl ether	ND		0.00137	1	05/27/2022 09:07	WG1869812	⁴ Cn
Ethylbenzene	ND		0.490	200	05/27/2022 13:59	WG1870766	⁵ Sr
Hexachloro-1,3-butadiene	ND		0.0200	1	05/27/2022 09:07	WG1869812	⁶ Qc
Isopropylbenzene	ND		0.283	200	05/27/2022 13:59	WG1870766	⁷ Gl
p-Isopropyltoluene	ND		0.00850	1	05/27/2022 09:07	WG1869812	⁸ Al
2-Butanone (MEK)	ND		0.212	1	05/27/2022 09:07	WG1869812	⁹ Sc
Methylene Chloride	ND		0.0221	1	05/27/2022 09:07	WG1869812	
4-Methyl-2-pentanone (MIBK)	ND	<u>J4</u>	0.00760	1	05/27/2022 09:07	WG1869812	
Methyl tert-butyl ether	ND		0.00117	1	05/27/2022 09:07	WG1869812	
Naphthalene	ND		3.25	200	05/27/2022 13:59	WG1870766	
n-Propylbenzene	ND		0.633	200	05/27/2022 13:59	WG1870766	
Styrene	ND		0.000763	1	05/27/2022 09:07	WG1869812	
1,1,1,2-Tetrachloroethane	ND		0.00316	1	05/27/2022 09:07	WG1869812	
1,1,2,2-Tetrachloroethane	ND		0.00232	1	05/27/2022 09:07	WG1869812	
1,1,2-Trichlorotrifluoroethane	ND		0.00251	1	05/27/2022 09:07	WG1869812	
Tetrachloroethene	35.6		0.597	200	05/27/2022 13:59	WG1870766	
Toluene	ND		0.00433	1	05/27/2022 09:07	WG1869812	
1,2,3-Trichlorobenzene	ND		0.0244	1	05/27/2022 09:07	WG1869812	
1,2,4-Trichlorobenzene	ND		0.0147	1	05/27/2022 09:07	WG1869812	
1,1,1-Trichloroethane	ND		0.00308	1	05/27/2022 09:07	WG1869812	
1,1,2-Trichloroethane	ND		0.00199	1	05/27/2022 09:07	WG1869812	
Trichloroethene	0.102		0.00195	1	05/27/2022 09:07	WG1869812	
Trichlorofluoromethane	ND		0.00276	1	05/27/2022 09:07	WG1869812	
1,2,3-Trichloropropane	ND		0.00540	1	05/27/2022 09:07	WG1869812	
1,2,4-Trimethylbenzene	ND		1.05	200	05/27/2022 13:59	WG1870766	
1,2,3-Trimethylbenzene	ND		1.05	200	05/27/2022 13:59	WG1870766	
1,3,5-Trimethylbenzene	ND		1.33	200	05/27/2022 13:59	WG1870766	
Vinyl chloride	ND		0.00387	1	05/27/2022 09:07	WG1869812	
Xylenes, Total	ND		0.587	200	05/27/2022 13:59	WG1870766	
(S) Toluene-d8	116		75.0-131		05/27/2022 09:07	WG1869812	
(S) Toluene-d8	99.1		75.0-131		05/27/2022 13:59	WG1870766	
(S) 4-Bromofluorobenzene	86.6		67.0-138		05/27/2022 09:07	WG1869812	
(S) 4-Bromofluorobenzene	105		67.0-138		05/27/2022 13:59	WG1870766	
(S) 1,2-Dichloroethane-d4	93.8		70.0-130		05/27/2022 09:07	WG1869812	
(S) 1,2-Dichloroethane-d4	108		70.0-130		05/27/2022 13:59	WG1870766	

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00767	1	06/01/2022 02:31	WG1872161
Acenaphthene	ND		0.00697	1	06/01/2022 02:31	WG1872161
Acenaphthylene	ND		0.00720	1	06/01/2022 02:31	WG1872161
Benzo(a)anthracene	ND		0.00577	1	06/01/2022 02:31	WG1872161
Benzo(a)pyrene	ND		0.00597	1	06/01/2022 02:31	WG1872161
Benzo(b)fluoranthene	ND		0.00510	1	06/01/2022 02:31	WG1872161
Benzo(g,h,i)perylene	ND		0.00590	1	06/01/2022 02:31	WG1872161
Benzo(k)fluoranthene	ND		0.00717	1	06/01/2022 02:31	WG1872161
Chrysene	ND		0.00773	1	06/01/2022 02:31	WG1872161
Dibenz(a,h)anthracene	ND		0.00573	1	06/01/2022 02:31	WG1872161
Fluoranthene	ND		0.00757	1	06/01/2022 02:31	WG1872161
Fluorene	ND		0.00683	1	06/01/2022 02:31	WG1872161
Indeno(1,2,3-cd)pyrene	ND		0.00603	1	06/01/2022 02:31	WG1872161
Naphthalene	ND		0.0136	1	06/01/2022 02:31	WG1872161

B1-10-15

Collected date/time: 05/19/22 10:30

SAMPLE RESULTS - 01

L1496601

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
Phenanthrene	ND		0.00770	1	06/01/2022 02:31	WG1872161	2 Tc
Pyrene	ND		0.00667	1	06/01/2022 02:31	WG1872161	
1-Methylnaphthalene	ND		0.0150	1	06/01/2022 02:31	WG1872161	3 Ss
2-Methylnaphthalene	ND		0.0142	1	06/01/2022 02:31	WG1872161	
2-Chloronaphthalene	ND		0.0155	1	06/01/2022 02:31	WG1872161	
(S) p-Terphenyl-d14	88.1		23.0-120		06/01/2022 02:31	WG1872161	4 Cn
(S) Nitrobenzene-d5	66.3		14.0-149		06/01/2022 02:31	WG1872161	
(S) 2-Fluorobiphenyl	69.9		34.0-125		06/01/2022 02:31	WG1872161	5 Sr

[6 Qc](#)[7 GI](#)[8 Al](#)[9 Sc](#)

Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	81.8		1	05/26/2022 09:50	WG1869889

¹ Cp

Mercury by Method 7471A

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	ND		0.0600	1	06/01/2022 11:48	WG1870773

² Tc

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	ND		1.73	1	06/03/2022 03:05	WG1871097
Barium	129		0.284	1	06/03/2022 03:05	WG1871097
Cadmium	ND		0.157	1	06/03/2022 03:05	WG1871097
Chromium	24.8		0.443	1	06/03/2022 17:46	WG1871097
Lead	5.22		0.693	1	06/03/2022 03:05	WG1871097
Selenium	ND		2.55	1	06/03/2022 03:05	WG1871097
Silver	ND		0.423	1	06/03/2022 17:46	WG1871097

³ Ss⁴ Cn⁵ Sr

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	<u>Qualifier</u>	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	ND		0.122	1	05/27/2022 08:39	WG1870323
Acrylonitrile	ND		0.0120	1	05/27/2022 08:39	WG1870323
Benzene	ND		0.00156	1	05/27/2022 08:39	WG1870323
Bromobenzene	ND		0.00300	1	05/27/2022 08:39	WG1870323
Bromodichloromethane	ND		0.00242	1	05/27/2022 08:39	WG1870323
Bromoform	ND		0.00390	1	05/27/2022 08:39	WG1870323
Bromomethane	ND		0.00657	1	05/27/2022 08:39	WG1870323
n-Butylbenzene	ND		0.0175	1	05/27/2022 08:39	WG1870323
sec-Butylbenzene	ND		0.00960	1	05/27/2022 08:39	WG1870323
tert-Butylbenzene	ND		0.00650	1	05/27/2022 08:39	WG1870323
Carbon tetrachloride	ND		0.00299	1	05/27/2022 08:39	WG1870323
Chlorobenzene	ND		0.000700	1	05/27/2022 08:39	WG1870323
Chlorodibromomethane	ND		0.00204	1	05/27/2022 08:39	WG1870323
Chloroethane	ND		0.00567	1	05/27/2022 08:39	WG1870323
Chloroform	ND		0.00343	1	05/27/2022 08:39	WG1870323
Chloromethane	ND		0.0145	1	05/27/2022 08:39	WG1870323
2-Chlorotoluene	ND		0.00288	1	05/27/2022 08:39	WG1870323
4-Chlorotoluene	ND		0.00150	1	05/27/2022 08:39	WG1870323
1,2-Dibromo-3-Chloropropane	ND		0.0130	1	05/27/2022 08:39	WG1870323
1,2-Dibromoethane	ND		0.00216	1	05/27/2022 08:39	WG1870323
Dibromomethane	ND		0.00250	1	05/27/2022 08:39	WG1870323
1,2-Dichlorobenzene	ND		0.00142	1	05/27/2022 08:39	WG1870323
1,3-Dichlorobenzene	ND		0.00200	1	05/27/2022 08:39	WG1870323
1,4-Dichlorobenzene	ND		0.00233	1	05/27/2022 08:39	WG1870323
Dichlorodifluoromethane	ND		0.00537	1	05/27/2022 08:39	WG1870323
1,1-Dichloroethane	ND		0.00164	1	05/27/2022 08:39	WG1870323
1,2-Dichloroethane	ND		0.00216	1	05/27/2022 08:39	WG1870323
1,1-Dichloroethene	ND		0.00202	1	05/27/2022 08:39	WG1870323
cis-1,2-Dichloroethene	ND		0.00245	1	05/27/2022 08:39	WG1870323
trans-1,2-Dichloroethene	ND		0.00347	1	05/27/2022 08:39	WG1870323
1,2-Dichloropropane	ND		0.00473	1	05/27/2022 08:39	WG1870323
1,1-Dichloropropene	ND		0.00270	1	05/27/2022 08:39	WG1870323
1,3-Dichloropropane	ND		0.00167	1	05/27/2022 08:39	WG1870323

⁶ Qc⁷ GI⁸ Al⁹ Sc

SAMPLE RESULTS - 02

L1496601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch	
cis-1,3-Dichloropropene	ND		0.00252	1	05/27/2022 08:39	WG1870323	¹ Cp
trans-1,3-Dichloropropene	ND		0.00380	1	05/27/2022 08:39	WG1870323	² Tc
2,2-Dichloropropane	ND		0.00460	1	05/27/2022 08:39	WG1870323	³ Ss
Di-isopropyl ether	ND		0.00137	1	05/27/2022 08:39	WG1870323	⁴ Cn
Ethylbenzene	ND		0.00246	1	05/27/2022 08:39	WG1870323	⁵ Sr
Hexachloro-1,3-butadiene	ND		0.0200	1	05/27/2022 08:39	WG1870323	⁶ Qc
Isopropylbenzene	ND		0.00142	1	05/27/2022 08:39	WG1870323	⁷ Gl
p-Isopropyltoluene	ND		0.00850	1	05/27/2022 08:39	WG1870323	⁸ Al
2-Butanone (MEK)	ND		0.212	1	05/27/2022 08:39	WG1870323	⁹ Sc
Methylene Chloride	ND		0.0221	1	05/27/2022 08:39	WG1870323	
4-Methyl-2-pentanone (MIBK)	ND		0.00760	1	05/27/2022 08:39	WG1870323	
Methyl tert-butyl ether	ND		0.00117	1	05/27/2022 08:39	WG1870323	
Naphthalene	ND		0.0163	1	05/27/2022 08:39	WG1870323	
n-Propylbenzene	ND		0.00317	1	05/27/2022 08:39	WG1870323	
Styrene	ND		0.000763	1	05/27/2022 08:39	WG1870323	
1,1,1,2-Tetrachloroethane	ND		0.00316	1	05/27/2022 08:39	WG1870323	
1,1,2,2-Tetrachloroethane	ND		0.00232	1	05/27/2022 08:39	WG1870323	
1,1,2-Trichlorotrifluoroethane	ND		0.00251	1	05/27/2022 08:39	WG1870323	
Tetrachloroethene	0.0143		0.00299	1	05/27/2022 08:39	WG1870323	
Toluene	ND		0.00433	1	05/27/2022 08:39	WG1870323	
1,2,3-Trichlorobenzene	ND		0.0244	1	05/27/2022 08:39	WG1870323	
1,2,4-Trichlorobenzene	ND		0.0147	1	05/27/2022 08:39	WG1870323	
1,1,1-Trichloroethane	ND		0.00308	1	05/27/2022 08:39	WG1870323	
1,1,2-Trichloroethane	ND		0.00199	1	05/27/2022 08:39	WG1870323	
Trichloroethene	ND		0.00195	1	05/27/2022 08:39	WG1870323	
Trichlorofluoromethane	ND		0.00276	1	05/27/2022 08:39	WG1870323	
1,2,3-Trichloropropane	ND		0.00540	1	05/27/2022 08:39	WG1870323	
1,2,4-Trimethylbenzene	ND		0.00527	1	05/27/2022 08:39	WG1870323	
1,2,3-Trimethylbenzene	ND		0.00527	1	05/27/2022 08:39	WG1870323	
1,3,5-Trimethylbenzene	ND		0.00667	1	05/27/2022 08:39	WG1870323	
Vinyl chloride	ND		0.00387	1	05/27/2022 08:39	WG1870323	
Xylenes, Total	ND		0.00293	1	05/27/2022 08:39	WG1870323	
(S) Toluene-d8	101		75.0-131		05/27/2022 08:39	WG1870323	
(S) 4-Bromofluorobenzene	105		67.0-138		05/27/2022 08:39	WG1870323	
(S) 1,2-Dichloroethane-d4	83.9		70.0-130		05/27/2022 08:39	WG1870323	

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00767	1	06/01/2022 02:48	WG1872161
Acenaphthene	ND		0.00697	1	06/01/2022 02:48	WG1872161
Acenaphthylene	ND		0.00720	1	06/01/2022 02:48	WG1872161
Benzo(a)anthracene	ND		0.00577	1	06/01/2022 02:48	WG1872161
Benzo(a)pyrene	ND		0.00597	1	06/01/2022 02:48	WG1872161
Benzo(b)fluoranthene	ND		0.00510	1	06/01/2022 02:48	WG1872161
Benzo(g,h,i)perylene	ND		0.00590	1	06/01/2022 02:48	WG1872161
Benzo(k)fluoranthene	ND		0.00717	1	06/01/2022 02:48	WG1872161
Chrysene	ND		0.00773	1	06/01/2022 02:48	WG1872161
Dibenz(a,h)anthracene	ND		0.00573	1	06/01/2022 02:48	WG1872161
Fluoranthene	ND		0.00757	1	06/01/2022 02:48	WG1872161
Fluorene	ND		0.00683	1	06/01/2022 02:48	WG1872161
Indeno(1,2,3-cd)pyrene	ND		0.00603	1	06/01/2022 02:48	WG1872161
Naphthalene	ND		0.0136	1	06/01/2022 02:48	WG1872161
Phenanthrene	ND		0.00770	1	06/01/2022 02:48	WG1872161
Pyrene	ND		0.00667	1	06/01/2022 02:48	WG1872161
1-Methylnaphthalene	ND		0.0150	1	06/01/2022 02:48	WG1872161

B2-10-15

Collected date/time: 05/19/22 11:30

SAMPLE RESULTS - 02

L1496601

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
2-Methylnaphthalene	ND		0.0142	1	06/01/2022 02:48	WG1872161	2 Tc
2-Chloronaphthalene	ND		0.0155	1	06/01/2022 02:48	WG1872161	3 Ss
(S) <i>p</i> -Terphenyl- <i>d</i> 4	65.1		23.0-120		06/01/2022 02:48	WG1872161	4 Cn
(S) Nitrobenzene- <i>d</i> 5	50.4		14.0-149		06/01/2022 02:48	WG1872161	5 Sr
(S) 2-Fluorobiphenyl	44.6		34.0-125		06/01/2022 02:48	WG1872161	6 Qc

WG1869889

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

[L1496601-01,02](#)

Method Blank (MB)

(MB) R3796769-1 05/26/22 09:50

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.00200			

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1495978-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1495978-11 05/26/22 09:50 • (DUP) R3796769-3 05/26/22 09:50

Analyte	Original Result %	DUP Result %	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Total Solids	77.4	77.9	1	0.725		10

Laboratory Control Sample (LCS)

(LCS) R3796769-2 05/26/22 09:50

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85.0-115	

⁷Gl⁸Al⁹Sc

QUALITY CONTROL SUMMARY

[L1496601-01,02](#)

Method Blank (MB)

(MB) R3798104-1 06/01/22 10:45

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0600

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3798104-2 06/01/22 10:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Mercury	0.500	0.477	95.4	80.0-120	

L1496418-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496418-06 06/01/22 10:55 • (MS) R3798104-3 06/01/22 10:57 • (MSD) R3798104-4 06/01/22 11:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury	0.500	ND	0.452	0.472	90.4	94.4	1	75.0-125		4.27	20

QUALITY CONTROL SUMMARY

[L1496601-01,02](#)

Method Blank (MB)

(MB) R3798974-1 06/03/22 02:46

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Arsenic	0.563	J	0.518	1.73
Barium	U		0.0852	0.284
Cadmium	U		0.0471	0.157
Lead	U		0.208	0.693
Selenium	U		0.764	2.55

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Method Blank (MB)

(MB) R3799640-1 06/03/22 17:28

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Chromium	U		0.133	0.443
Silver	U		0.127	0.423

Laboratory Control Sample (LCS)

(LCS) R3798974-2 06/03/22 02:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Arsenic	100	91.8	91.8	80.0-120	
Barium	100	99.8	99.8	80.0-120	
Cadmium	100	95.4	95.4	80.0-120	
Lead	100	90.9	90.9	80.0-120	
Selenium	100	96.7	96.7	80.0-120	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3799640-2 06/03/22 17:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chromium	100	92.6	92.6	80.0-120	
Silver	20.0	18.0	89.9	80.0-120	

QUALITY CONTROL SUMMARY

L1496601-01,02

L1496601-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496601-01 06/03/22 02:51 • (MS) R3798974-5 06/03/22 02:59 • (MSD) R3798974-6 06/03/22 03:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Arsenic	100	ND	98.0	84.7	98.0	94.8	1	75.0-125			14.6	20
Barium	100	84.4	160	180	75.8	107	1	75.0-125			11.7	20
Cadmium	100	ND	101	88.2	100	98.7	1	75.0-125			13.0	20
Lead	100	3.86	100	87.7	96.6	93.9	1	75.0-125			13.6	20
Selenium	100	ND	100	85.7	100	95.1	1	75.0-125			15.7	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1496601-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496601-01 06/03/22 17:33 • (MS) R3799640-5 06/03/22 17:41 • (MSD) R3799640-6 06/03/22 17:43

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Chromium	100	22.7	114	106	91.7	92.9	1	75.0-125			7.96	20
Silver	20.0	ND	19.0	16.3	95.2	91.0	1	75.0-125			15.6	20

WG1869812

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1496601-01](#)

Method Blank (MB)

(MB) R3796784-2 05/27/22 00:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Acetone	U		0.0365	0.122	¹ Cp
Acrylonitrile	U		0.00361	0.0120	² Tc
Benzene	U		0.000467	0.00156	³ Ss
Bromobenzene	U		0.000900	0.00300	⁴ Cn
Bromodichloromethane	U		0.000725	0.00242	⁵ Sr
Bromoform	U		0.00117	0.00390	⁶ Qc
Bromomethane	U		0.00197	0.00657	⁷ Gl
n-Butylbenzene	U		0.00525	0.0175	⁸ Al
sec-Butylbenzene	U		0.00288	0.00960	⁹ Sc
tert-Butylbenzene	U		0.00195	0.00650	
Carbon tetrachloride	U		0.000898	0.00299	
Chlorobenzene	U		0.000210	0.000700	
Chlorodibromomethane	U		0.000612	0.00204	
Chloroethane	U		0.00170	0.00567	
Chloroform	U		0.00103	0.00343	
Chloromethane	U		0.00435	0.0145	
2-Chlorotoluene	U		0.000865	0.00288	
4-Chlorotoluene	U		0.000450	0.00150	
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0130	
1,2-Dibromoethane	U		0.000648	0.00216	
Dibromomethane	U		0.000750	0.00250	
1,2-Dichlorobenzene	U		0.000425	0.00142	
1,3-Dichlorobenzene	U		0.000600	0.00200	
1,4-Dichlorobenzene	U		0.000700	0.00233	
Dichlorodifluoromethane	U		0.00161	0.00537	
1,1-Dichloroethane	U		0.000491	0.00164	
1,2-Dichloroethane	U		0.000649	0.00216	
1,1-Dichloroethene	U		0.000606	0.00202	
cis-1,2-Dichloroethene	U		0.000734	0.00245	
trans-1,2-Dichloroethene	U		0.00104	0.00347	
1,2-Dichloropropane	U		0.00142	0.00473	
1,1-Dichloropropene	U		0.000809	0.00270	
1,3-Dichloropropane	U		0.000501	0.00167	
cis-1,3-Dichloropropene	U		0.000757	0.00252	
trans-1,3-Dichloropropene	U		0.00114	0.00380	
2,2-Dichloropropane	U		0.00138	0.00460	
Di-isopropyl ether	U		0.000410	0.00137	
Hexachloro-1,3-butadiene	U		0.00600	0.0200	
p-Isopropyltoluene	U		0.00255	0.00850	
2-Butanone (MEK)	U		0.0635	0.212	

ACCOUNT:

Lord and Winter, LLC

PROJECT:

611

SDG:

L1496601

DATE/TIME:

06/06/22 10:34

PAGE:

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Method Blank (MB)

(MB) R3796784-2 05/27/22 00:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Methylene Chloride	U		0.00664	0.0221	¹ Cp
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.00760	² Tc
Methyl tert-butyl ether	U		0.000350	0.00117	³ Ss
Styrene	U		0.000229	0.000763	⁴ Cn
1,1,2-Tetrachloroethane	U		0.000948	0.00316	⁵ Sr
1,1,2,2-Tetrachloroethane	U		0.000695	0.00232	⁶ Qc
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00251	⁷ Gl
Toluene	U		0.00130	0.00433	⁸ Al
1,2,3-Trichlorobenzene	U		0.00733	0.0244	⁹ Sc
1,2,4-Trichlorobenzene	U		0.00440	0.0147	
1,1,1-Trichloroethane	U		0.000923	0.00308	
1,1,2-Trichloroethane	U		0.000597	0.00199	
Trichloroethene	U		0.000584	0.00195	
Trichlorofluoromethane	U		0.000827	0.00276	
1,2,3-Trichloropropane	U		0.00162	0.00540	
Vinyl chloride	U		0.00116	0.00387	
(S) Toluene-d8	116		75.0-131		
(S) 4-Bromofluorobenzene	80.3		67.0-138		
(S) 1,2-Dichloroethane-d4	99.4		70.0-130		

Laboratory Control Sample (LCS)

(LCS) R3796784-1 05/26/22 22:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.831	133	10.0-160	
Acrylonitrile	0.625	0.683	109	45.0-153	
Benzene	0.125	0.114	91.2	70.0-123	
Bromobenzene	0.125	0.161	129	73.0-121	^{J4}
Bromodichloromethane	0.125	0.119	95.2	73.0-121	
Bromoform	0.125	0.119	95.2	64.0-132	
Bromomethane	0.125	0.113	90.4	56.0-147	
n-Butylbenzene	0.125	0.112	89.6	68.0-135	
sec-Butylbenzene	0.125	0.120	96.0	74.0-130	
tert-Butylbenzene	0.125	0.127	102	75.0-127	
Carbon tetrachloride	0.125	0.106	84.8	66.0-128	
Chlorobenzene	0.125	0.140	112	76.0-128	
Chlorodibromomethane	0.125	0.144	115	74.0-127	
Chloroethane	0.125	0.122	97.6	61.0-134	

QUALITY CONTROL SUMMARY

L1496601-01

Laboratory Control Sample (LCS)

(LCS) R3796784-1 05/26/22 22:55

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloroform	0.125	0.122	97.6	72.0-123	
Chloromethane	0.125	0.162	130	51.0-138	
2-Chlorotoluene	0.125	0.142	114	75.0-124	
4-Chlorotoluene	0.125	0.137	110	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.125	100	59.0-130	
1,2-Dibromoethane	0.125	0.142	114	74.0-128	
Dibromomethane	0.125	0.121	96.8	75.0-122	
1,2-Dichlorobenzene	0.125	0.130	104	76.0-124	
1,3-Dichlorobenzene	0.125	0.132	106	76.0-125	
1,4-Dichlorobenzene	0.125	0.119	95.2	77.0-121	
Dichlorodifluoromethane	0.125	0.114	91.2	43.0-156	
1,1-Dichloroethane	0.125	0.126	101	70.0-127	
1,2-Dichloroethane	0.125	0.134	107	65.0-131	
1,1-Dichloroethene	0.125	0.126	101	65.0-131	
cis-1,2-Dichloroethene	0.125	0.120	96.0	73.0-125	
trans-1,2-Dichloroethene	0.125	0.126	101	71.0-125	
1,2-Dichloropropane	0.125	0.115	92.0	74.0-125	
1,1-Dichloropropene	0.125	0.114	91.2	73.0-125	
1,3-Dichloropropane	0.125	0.147	118	80.0-125	
cis-1,3-Dichloropropene	0.125	0.115	92.0	76.0-127	
trans-1,3-Dichloropropene	0.125	0.135	108	73.0-127	
2,2-Dichloropropane	0.125	0.128	102	59.0-135	
Di-isopropyl ether	0.125	0.154	123	60.0-136	
Hexachloro-1,3-butadiene	0.125	0.110	88.0	57.0-150	
p-Isopropyltoluene	0.125	0.123	98.4	72.0-133	
2-Butanone (MEK)	0.625	0.794	127	30.0-160	
Methylene Chloride	0.125	0.129	103	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.974	156	56.0-143	J4
Methyl tert-butyl ether	0.125	0.116	92.8	66.0-132	
Styrene	0.125	0.127	102	72.0-127	
1,1,2-Tetrachloroethane	0.125	0.132	106	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.147	118	68.0-128	
1,1,2-Trichlorotrifluoroethane	0.125	0.106	84.8	61.0-139	
Toluene	0.125	0.139	111	75.0-121	
1,2,3-Trichlorobenzene	0.125	0.107	85.6	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.127	102	62.0-137	
1,1,1-Trichloroethane	0.125	0.122	97.6	69.0-126	
1,1,2-Trichloroethane	0.125	0.149	119	78.0-123	
Trichloroethene	0.125	0.133	106	76.0-126	
Trichlorofluoromethane	0.125	0.0882	70.6	61.0-142	

Laboratory Control Sample (LCS)

(LCS) R3796784-1 05/26/22 22:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2,3-Trichloropropane	0.125	0.156	125	67.0-129	
Vinyl chloride	0.125	0.126	101	63.0-134	
(S) Toluene-d8			110	75.0-131	
(S) 4-Bromofluorobenzene		85.0		67.0-138	
(S) 1,2-Dichloroethane-d4		108		70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

WG1870323

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1496601-02](#)

Method Blank (MB)

(MB) R3796703-3 05/27/22 00:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Acetone	U		0.0365	0.122	¹ Cp
Acrylonitrile	U		0.00361	0.0120	² Tc
Benzene	U		0.000467	0.00156	³ Ss
Bromobenzene	U		0.000900	0.00300	⁴ Cn
Bromodichloromethane	U		0.000725	0.00242	⁵ Sr
Bromoform	U		0.00117	0.00390	⁶ Qc
Bromomethane	U		0.00197	0.00657	⁷ Gl
n-Butylbenzene	U		0.00525	0.0175	⁸ Al
sec-Butylbenzene	U		0.00288	0.00960	⁹ Sc
tert-Butylbenzene	U		0.00195	0.00650	
Carbon tetrachloride	U		0.000898	0.00299	
Chlorobenzene	U		0.000210	0.000700	
Chlorodibromomethane	U		0.000612	0.00204	
Chloroethane	U		0.00170	0.00567	
Chloroform	U		0.00103	0.00343	
Chloromethane	U		0.00435	0.0145	
2-Chlorotoluene	U		0.000865	0.00288	
4-Chlorotoluene	U		0.000450	0.00150	
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0130	
1,2-Dibromoethane	U		0.000648	0.00216	
Dibromomethane	U		0.000750	0.00250	
1,2-Dichlorobenzene	U		0.000425	0.00142	
1,3-Dichlorobenzene	U		0.000600	0.00200	
1,4-Dichlorobenzene	U		0.000700	0.00233	
Dichlorodifluoromethane	U		0.00161	0.00537	
1,1-Dichloroethane	U		0.000491	0.00164	
1,2-Dichloroethane	U		0.000649	0.00216	
1,1-Dichloroethene	U		0.000606	0.00202	
cis-1,2-Dichloroethene	U		0.000734	0.00245	
trans-1,2-Dichloroethene	U		0.00104	0.00347	
1,2-Dichloropropane	U		0.00142	0.00473	
1,1-Dichloropropene	U		0.000809	0.00270	
1,3-Dichloropropane	U		0.000501	0.00167	
cis-1,3-Dichloropropene	U		0.000757	0.00252	
trans-1,3-Dichloropropene	U		0.00114	0.00380	
2,2-Dichloropropane	U		0.00138	0.00460	
Di-isopropyl ether	U		0.000410	0.00137	
Ethylbenzene	U		0.000737	0.00246	
Hexachloro-1,3-butadiene	U		0.00600	0.0200	
Isopropylbenzene	U		0.000425	0.00142	

ACCOUNT:

Lord and Winter, LLC

PROJECT:

611

SDG:

L1496601

DATE/TIME:

06/06/22 10:34

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QUALITY CONTROL SUMMARY

[L1496601-02](#)

Method Blank (MB)

(MB) R3796703-3 05/27/22 00:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	1 Cp
p-Isopropyltoluene	U		0.00255	0.00850	
2-Butanone (MEK)	U		0.0635	0.212	
Methylene Chloride	U		0.00664	0.0221	
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.00760	
Methyl tert-butyl ether	U		0.000350	0.00117	
Naphthalene	U		0.00488	0.0163	
n-Propylbenzene	U		0.000950	0.00317	
Styrene	U		0.000229	0.000763	
1,1,2-Tetrachloroethane	U		0.000948	0.00316	
1,1,2,2-Tetrachloroethane	U		0.000695	0.00232	
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00251	
Tetrachloroethene	U		0.000896	0.00299	
Toluene	U		0.00130	0.00433	
1,2,3-Trichlorobenzene	U		0.00733	0.0244	
1,2,4-Trichlorobenzene	U		0.00440	0.0147	
1,1,1-Trichloroethane	U		0.000923	0.00308	
1,1,2-Trichloroethane	U		0.000597	0.00199	
Trichloroethene	U		0.000584	0.00195	
Trichlorofluoromethane	U		0.000827	0.00276	
1,2,3-Trichloropropane	U		0.00162	0.00540	
1,2,4-Trimethylbenzene	0.00213	J	0.00158	0.00527	
1,2,3-Trimethylbenzene	U		0.00158	0.00527	
1,3,5-Trimethylbenzene	U		0.00200	0.00667	
Vinyl chloride	U		0.00116	0.00387	
Xylenes, Total	U		0.000880	0.00293	
(S) Toluene-d8	101		75.0-131		
(S) 4-Bromofluorobenzene	105		67.0-138		
(S) 1,2-Dichloroethane-d4	96.4		70.0-130		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3796703-1 05/26/22 22:07 • (LCSD) R3796703-2 05/26/22 23:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	0.625	0.388	0.371	62.1	59.4	10.0-160			4.48	31
Acrylonitrile	0.625	0.441	0.423	70.6	67.7	45.0-153			4.17	22
Benzene	0.125	0.113	0.118	90.4	94.4	70.0-123			4.33	20
Bromobenzene	0.125	0.116	0.115	92.8	92.0	73.0-121			0.866	20
Bromodichloromethane	0.125	0.118	0.123	94.4	98.4	73.0-121			4.15	20

QUALITY CONTROL SUMMARY

L1496601-02

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3796703-1 05/26/22 22:07 • (LCSD) R3796703-2 05/26/22 23:42

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.106	0.105	84.8	84.0	64.0-132			0.948	20
Bromomethane	0.125	0.105	0.108	84.0	86.4	56.0-147			2.82	20
n-Butylbenzene	0.125	0.113	0.110	90.4	88.0	68.0-135			2.69	20
sec-Butylbenzene	0.125	0.116	0.114	92.8	91.2	74.0-130			1.74	20
tert-Butylbenzene	0.125	0.106	0.107	84.8	85.6	75.0-127			0.939	20
Carbon tetrachloride	0.125	0.123	0.127	98.4	102	66.0-128			3.20	20
Chlorobenzene	0.125	0.119	0.119	95.2	95.2	76.0-128			0.000	20
Chlorodibromomethane	0.125	0.114	0.115	91.2	92.0	74.0-127			0.873	20
Chloroethane	0.125	0.137	0.145	110	116	61.0-134			5.67	20
Chloroform	0.125	0.123	0.128	98.4	102	72.0-123			3.98	20
Chloromethane	0.125	0.135	0.143	108	114	51.0-138			5.76	20
2-Chlorotoluene	0.125	0.107	0.109	85.6	87.2	75.0-124			1.85	20
4-Chlorotoluene	0.125	0.106	0.108	84.8	86.4	75.0-124			1.87	20
1,2-Dibromo-3-Chloropropane	0.125	0.0787	0.0788	63.0	63.0	59.0-130			0.127	20
1,2-Dibromoethane	0.125	0.114	0.114	91.2	91.2	74.0-128			0.000	20
Dibromomethane	0.125	0.115	0.117	92.0	93.6	75.0-122			1.72	20
1,2-Dichlorobenzene	0.125	0.119	0.114	95.2	91.2	76.0-124			4.29	20
1,3-Dichlorobenzene	0.125	0.119	0.118	95.2	94.4	76.0-125			0.844	20
1,4-Dichlorobenzene	0.125	0.114	0.113	91.2	90.4	77.0-121			0.881	20
Dichlorodifluoromethane	0.125	0.118	0.118	94.4	94.4	43.0-156			0.000	20
1,1-Dichloroethane	0.125	0.117	0.121	93.6	96.8	70.0-127			3.36	20
1,2-Dichloroethane	0.125	0.120	0.119	96.0	95.2	65.0-131			0.837	20
1,1-Dichloroethene	0.125	0.120	0.120	96.0	96.0	65.0-131			0.000	20
cis-1,2-Dichloroethene	0.125	0.129	0.134	103	107	73.0-125			3.80	20
trans-1,2-Dichloroethene	0.125	0.134	0.140	107	112	71.0-125			4.38	20
1,2-Dichloropropane	0.125	0.107	0.110	85.6	88.0	74.0-125			2.76	20
1,1-Dichloropropene	0.125	0.133	0.134	106	107	73.0-125			0.749	20
1,3-Dichloropropane	0.125	0.114	0.113	91.2	90.4	80.0-125			0.881	20
cis-1,3-Dichloropropene	0.125	0.111	0.116	88.8	92.8	76.0-127			4.41	20
trans-1,3-Dichloropropene	0.125	0.111	0.115	88.8	92.0	73.0-127			3.54	20
2,2-Dichloropropane	0.125	0.134	0.146	107	117	59.0-135			8.57	20
Di-isopropyl ether	0.125	0.118	0.116	94.4	92.8	60.0-136			1.71	20
Ethylbenzene	0.125	0.115	0.119	92.0	95.2	74.0-126			3.42	20
Hexachloro-1,3-butadiene	0.125	0.132	0.144	106	115	57.0-150			8.70	20
Isopropylbenzene	0.125	0.128	0.127	102	102	72.0-127			0.784	20
p-Isopropyltoluene	0.125	0.107	0.105	85.6	84.0	72.0-133			1.89	20
2-Butanone (MEK)	0.625	0.459	0.458	73.4	73.3	30.0-160			0.218	24
Methylene Chloride	0.125	0.116	0.115	92.8	92.0	68.0-123			0.866	20
4-Methyl-2-pentanone (MIBK)	0.625	0.503	0.499	80.5	79.8	56.0-143			0.798	20
Methyl tert-butyl ether	0.125	0.124	0.118	99.2	94.4	66.0-132			4.96	20

QUALITY CONTROL SUMMARY

[L1496601-02](#)

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3796703-1 05/26/22 22:07 • (LCSD) R3796703-2 05/26/22 23:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.109	0.0981	87.2	78.5	59.0-130			10.5	20
n-Propylbenzene	0.125	0.112	0.113	89.6	90.4	74.0-126			0.889	20
Styrene	0.125	0.117	0.118	93.6	94.4	72.0-127			0.851	20
1,1,1,2-Tetrachloroethane	0.125	0.117	0.117	93.6	93.6	74.0-129			0.000	20
1,1,2,2-Tetrachloroethane	0.125	0.0968	0.100	77.4	80.0	68.0-128			3.25	20
1,1,2-Trichlorotrifluoroethane	0.125	0.129	0.131	103	105	61.0-139			1.54	20
Tetrachloroethene	0.125	0.133	0.134	106	107	70.0-136			0.749	20
Toluene	0.125	0.118	0.123	94.4	98.4	75.0-121			4.15	20
1,2,3-Trichlorobenzene	0.125	0.114	0.106	91.2	84.8	59.0-139			7.27	20
1,2,4-Trichlorobenzene	0.125	0.132	0.127	106	102	62.0-137			3.86	20
1,1,1-Trichloroethane	0.125	0.141	0.145	113	116	69.0-126			2.80	20
1,1,2-Trichloroethane	0.125	0.117	0.119	93.6	95.2	78.0-123			1.69	20
Trichloroethene	0.125	0.144	0.140	115	112	76.0-126			2.82	20
Trichlorofluoromethane	0.125	0.122	0.122	97.6	97.6	61.0-142			0.000	20
1,2,3-Trichloroproppane	0.125	0.104	0.104	83.2	83.2	67.0-129			0.000	20
1,2,4-Trimethylbenzene	0.125	0.114	0.113	91.2	90.4	70.0-126			0.881	20
1,2,3-Trimethylbenzene	0.125	0.109	0.105	87.2	84.0	74.0-124			3.74	20
1,3,5-Trimethylbenzene	0.125	0.110	0.110	88.0	88.0	73.0-127			0.000	20
Vinyl chloride	0.125	0.118	0.122	94.4	97.6	63.0-134			3.33	20
Xylenes, Total	0.375	0.352	0.351	93.9	93.6	72.0-127			0.284	20
(S) Toluene-d8				100	100	75.0-131				
(S) 4-Bromofluorobenzene				105	104	67.0-138				
(S) 1,2-Dichloroethane-d4				102	102	70.0-130				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

QUALITY CONTROL SUMMARY

[L1496601-01](#)

Method Blank (MB)

(MB) R3796960-3 05/27/22 11:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	1 ¹ Cp
Ethylbenzene	U		0.000737	0.00246	
Isopropylbenzene	U		0.000425	0.00142	
Naphthalene	U		0.00488	0.0163	
n-Propylbenzene	U		0.000950	0.00317	
Tetrachloroethene	U		0.000896	0.00299	
1,2,4-Trimethylbenzene	U		0.00158	0.00527	
1,2,3-Trimethylbenzene	U		0.00158	0.00527	
1,3,5-Trimethylbenzene	U		0.00200	0.00667	
Xylenes, Total	U		0.000880	0.00293	
(S) Toluene-d8	100			75.0-131	
(S) 4-Bromofluorobenzene	101			67.0-138	
(S) 1,2-Dichloroethane-d4	112			70.0-130	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3796960-1 05/27/22 09:48 • (LCSD) R3796960-2 05/27/22 10:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.125	0.117	0.115	93.6	92.0	74.0-126			1.72	20
Isopropylbenzene	0.125	0.116	0.111	92.8	88.8	72.0-127			4.41	20
Naphthalene	0.125	0.0989	0.106	79.1	84.8	59.0-130			6.93	20
n-Propylbenzene	0.125	0.105	0.105	84.0	84.0	74.0-126			0.000	20
Tetrachloroethene	0.125	0.117	0.117	93.6	93.6	70.0-136			0.000	20
1,2,4-Trimethylbenzene	0.125	0.102	0.104	81.6	83.2	70.0-126			1.94	20
1,2,3-Trimethylbenzene	0.125	0.107	0.110	85.6	88.0	74.0-124			2.76	20
1,3,5-Trimethylbenzene	0.125	0.109	0.111	87.2	88.8	73.0-127			1.82	20
Xylenes, Total	0.375	0.344	0.336	91.7	89.6	72.0-127			2.35	20
(S) Toluene-d8				101	98.6	75.0-131				
(S) 4-Bromofluorobenzene				103	102	67.0-138				
(S) 1,2-Dichloroethane-d4				112	113	70.0-130				

Method Blank (MB)

(MB) R3798209-2 06/01/22 00:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Anthracene	U		0.00230	0.00767	¹ Cp
Acenaphthene	U		0.00209	0.00697	² Tc
Acenaphthylene	U		0.00216	0.00720	³ Ss
Benzo(a)anthracene	U		0.00173	0.00577	⁴ Cn
Benzo(a)pyrene	U		0.00179	0.00597	⁵ Sr
Benzo(b)fluoranthene	U		0.00153	0.00510	⁶ Qc
Benzo(g,h,i)perylene	U		0.00177	0.00590	⁷ Gl
Benzo(k)fluoranthene	U		0.00215	0.00717	⁸ Al
Chrysene	U		0.00232	0.00773	⁹ Sc
Dibenz(a,h)anthracene	U		0.00172	0.00573	
Fluoranthene	U		0.00227	0.00757	
Fluorene	U		0.00205	0.00683	
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00603	
Naphthalene	U		0.00408	0.0136	
Phenanthrene	U		0.00231	0.00770	
Pyrene	U		0.00200	0.00667	
1-Methylnaphthalene	U		0.00449	0.0150	
2-Methylnaphthalene	U		0.00427	0.0142	
2-Chloronaphthalene	U		0.00466	0.0155	
(S) p-Terphenyl-d14	95.6		23.0-120		
(S) Nitrobenzene-d5	73.1		14.0-149		
(S) 2-Fluorobiphenyl	78.9		34.0-125		

Laboratory Control Sample (LCS)

(LCS) R3798209-1 06/01/22 00:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0544	68.0	50.0-126	
Acenaphthene	0.0800	0.0575	71.9	50.0-120	
Acenaphthylene	0.0800	0.0581	72.6	50.0-120	
Benzo(a)anthracene	0.0800	0.0536	67.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0465	58.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0561	70.1	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0545	68.1	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0544	68.0	49.0-125	
Chrysene	0.0800	0.0564	70.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0551	68.9	47.0-125	
Fluoranthene	0.0800	0.0561	70.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3798209-1 06/01/22 00:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Fluorene	0.0800	0.0590	73.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0531	66.4	46.0-125	
Naphthalene	0.0800	0.0564	70.5	50.0-120	
Phenanthrene	0.0800	0.0584	73.0	47.0-120	
Pyrene	0.0800	0.0556	69.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0573	71.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0550	68.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0583	72.9	50.0-120	
(S) p-Terphenyl-d14		90.4	23.0-120		
(S) Nitrobenzene-d5		74.1	14.0-149		
(S) 2-Fluorobiphenyl		75.3	34.0-125		

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L1496684-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496684-03 06/01/22 04:53 • (MS) R3798209-3 06/01/22 05:11 • (MSD) R3798209-4 06/01/22 05:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0777	ND	0.0444	0.0487	57.2	63.4	1	10.0-145		9.24	30
Acenaphthene	0.0777	ND	0.0442	0.0483	57.0	62.9	1	14.0-127		8.86	27
Acenaphthylene	0.0777	ND	0.0468	0.0521	60.3	67.8	1	21.0-124		10.7	25
Benzo(a)anthracene	0.0777	ND	0.0450	0.0494	58.0	64.3	1	10.0-139		9.32	30
Benzo(a)pyrene	0.0777	ND	0.0393	0.0437	50.6	56.9	1	10.0-141		10.6	31
Benzo(b)fluoranthene	0.0777	ND	0.0378	0.0415	48.7	54.0	1	10.0-140		9.33	36
Benzo(g,h,i)perylene	0.0777	ND	0.0357	0.0403	46.0	52.5	1	10.0-140		12.1	33
Benzo(k)fluoranthene	0.0777	ND	0.0391	0.0425	50.4	55.3	1	10.0-137		8.33	31
Chrysene	0.0777	ND	0.0426	0.0465	54.9	60.5	1	10.0-145		8.75	30
Dibenz(a,h)anthracene	0.0777	ND	0.0366	0.0416	47.2	54.2	1	10.0-132		12.8	31
Fluoranthene	0.0777	ND	0.0457	0.0505	58.9	65.8	1	10.0-153		9.98	33
Fluorene	0.0777	ND	0.0470	0.0522	60.6	68.0	1	11.0-130		10.5	29
Indeno(1,2,3-cd)pyrene	0.0777	ND	0.0383	0.0421	49.4	54.8	1	10.0-137		9.45	32
Naphthalene	0.0777	ND	0.0428	0.0479	55.2	62.4	1	10.0-135		11.2	27
Phenanthrene	0.0777	ND	0.0439	0.0477	56.6	62.1	1	10.0-144		8.30	31
Pyrene	0.0777	ND	0.0404	0.0446	52.1	58.1	1	10.0-148		9.88	35
1-Methylnaphthalene	0.0777	ND	0.0443	0.0494	57.1	64.3	1	10.0-142		10.9	28
2-Methylnaphthalene	0.0777	ND	0.0429	0.0480	55.3	62.5	1	10.0-137		11.2	28
2-Chloronaphthalene	0.0777	ND	0.0429	0.0483	55.3	62.9	1	29.0-120		11.8	24
(S) p-Terphenyl-d14				67.1	73.8		23.0-120				
(S) Nitrobenzene-d5				75.3	82.4		14.0-149				
(S) 2-Fluorobiphenyl				58.0	66.2		34.0-125				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ATTACHMENT F – SOIL VAPOR ANALYTICAL RESULTS



ANALYTICAL REPORT

May 26, 2022

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Lord and Winter, LLC

Sample Delivery Group: L1496163
Samples Received: 05/20/2022
Project Number: 611
Description: 802 W Main-Ashland
Site: ASHLAND, WISCONSIN
Report To: Jonathan Odekirk
231 Public Square
Suite 300 - PMB44
Franklin, TN 37064

Entire Report Reviewed By:

Jennifer Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	² Tc
Ss: Sample Summary	3	³ Ss
Cn: Case Narrative	4	⁴ Cn
Sr: Sample Results	5	⁵ Sr
SV1 L1496163-01	5	
Qc: Quality Control Summary	7	⁶ Qc
Volatile Organic Compounds (MS) by Method TO-15	7	
Gl: Glossary of Terms	12	⁷ Gl
Al: Accreditations & Locations	13	⁸ Al
Sc: Sample Chain of Custody	14	⁹ Sc

SAMPLE SUMMARY

SV1 L1496163-01 Air

			Collected by David Winter	Collected date/time 05/19/22 12:03	Received date/time 05/20/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1868580	1	05/24/22 23:41	05/24/22 23:41	FKG	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1869364	10	05/25/22 17:04	05/25/22 17:04	CEP	Mt. Juliet, TN

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer Gambill
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	1 Cp
Acetone	67-64-1	58.10	19.5	46.3	140	333		10	WG1869364	2 Tc
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND		1	WG1868580	3 Ss
Benzene	71-43-2	78.10	0.238	0.760	1.21	3.87		1	WG1868580	4 Cn
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1868580	5 Sr
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND		1	WG1868580	6 Qc
Bromoform	75-25-2	253	0.244	2.52	ND	ND		1	WG1868580	7 GI
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND		1	WG1868580	8 Al
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND		1	WG1868580	9 Sc
Carbon disulfide	75-15-0	76.10	0.340	1.06	2.56	7.97		1	WG1868580	
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND		1	WG1868580	
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND		1	WG1868580	
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND		1	WG1868580	
Chloroform	67-66-3	119	0.239	1.16	ND	ND		1	WG1868580	
Chloromethane	74-87-3	50.50	0.343	0.708	ND	ND		1	WG1868580	
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND		1	WG1868580	
Cyclohexane	110-82-7	84.20	0.251	0.864	1.50	5.17		1	WG1868580	
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND		1	WG1868580	
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND		1	WG1868580	
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND		1	WG1868580	
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND		1	WG1868580	
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1868580	
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND		1	WG1868580	
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND		1	WG1868580	
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND		1	WG1868580	
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	ND	ND		1	WG1868580	
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	ND	ND		1	WG1868580	
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND		1	WG1868580	
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND		1	WG1868580	
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND		1	WG1868580	
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND		1	WG1868580	
Ethanol	64-17-5	46.10	0.883	1.66	18.2	34.3		1	WG1868580	
Ethylbenzene	100-41-4	106	0.278	1.21	0.699	3.03		1	WG1868580	
4-Ethyltoluene	622-96-8	120	0.261	1.28	ND	ND		1	WG1868580	
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	ND	ND		1	WG1868580	
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	0.457	2.26		1	WG1868580	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND		1	WG1868580	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND		1	WG1868580	
Heptane	142-82-5	100	0.347	1.42	1.21	4.95		1	WG1868580	
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND		1	WG1868580	
n-Hexane	110-54-3	86.20	0.687	2.42	2.79	9.84		1	WG1868580	
Isopropylbenzene	98-82-8	120.20	0.259	1.27	ND	ND		1	WG1868580	
Methylene Chloride	75-09-2	84.90	0.326	1.13	1.37	4.76		1	WG1868580	
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND		1	WG1868580	
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	4.49	13.2		1	WG1868580	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	0.658	2.69		1	WG1868580	
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND		1	WG1868580	
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND		1	WG1868580	
Naphthalene	91-20-3	128	1.17	6.13	ND	ND		1	WG1868580	
2-Propanol	67-63-0	60.10	8.80	21.6	501	1230		10	WG1869364	
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1868580	
Styrene	100-42-5	104	0.263	1.12	ND	ND		1	WG1868580	
1,1,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND		1	WG1868580	
Tetrachloroethylene	127-18-4	166	2.71	18.4	110	747		10	WG1869364	
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	ND	ND		1	WG1868580	
Toluene	108-88-3	92.10	0.290	1.09	3.31	12.5		1	WG1868580	
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1868580	

SV1

Collected date/time: 05/19/22 12:03

SAMPLE RESULTS - 01

L1496163

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	ND	ND		1	WG1868580
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	WG1868580
Trichloroethylene	79-01-6	131	0.227	1.22	ND	ND		1	WG1868580
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	0.818	4.01		1	WG1868580
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	0.317	1.56		1	WG1868580
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	1.92	8.97		1	WG1868580
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	WG1868580
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	WG1868580
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	WG1868580
m&p-Xylene	1330-20-7	106	0.450	1.95	2.53	11.0		1	WG1868580
o-Xylene	95-47-6	106	0.276	1.20	1.45	6.29		1	WG1868580
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1868580
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.3				WG1869364

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

WG1868580

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

[L1496163-01](#)

Method Blank (MB)

(MB) R3795307-3 05/24/22 10:14

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	1 ¹ Cp
Allyl Chloride	U		0.114	0.380	
Benzene	U		0.0715	0.238	
Benzyl Chloride	U		0.0598	0.199	
Bromodichloromethane	U		0.0702	0.234	
Bromoform	U		0.0732	0.244	
Bromomethane	U		0.0982	0.327	
1,3-Butadiene	U		0.104	0.347	
Carbon disulfide	U		0.102	0.340	
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
cis-1,2-Dichloroethene	U		0.0784	0.261	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	U		0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	
Isopropylbenzene	U		0.0777	0.259	

QUALITY CONTROL SUMMARY

[L1496163-01](#)

Method Blank (MB)

(MB) R3795307-3 05/24/22 10:14

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv								
Methylene Chloride	U		0.0979	0.326								
Methyl Butyl Ketone	U		0.133	0.443								
2-Butanone (MEK)	U		0.0814	0.271								
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255								
Methyl Methacrylate	U		0.0876	0.292								
MTBE	U		0.0647	0.216								
Naphthalene	U		0.350	1.17								
Propene	0.100	J	0.0932	0.311								
Styrene	U		0.0788	0.263								
1,1,2,2-Tetrachloroethane	U		0.0743	0.248								
Tetrahydrofuran	U		0.0734	0.245								
Toluene	U		0.0870	0.290								
1,2,4-Trichlorobenzene	U		0.148	0.493								
1,1,1-Trichloroethane	U		0.0736	0.245								
1,1,2-Trichloroethane	U		0.0775	0.258								
Trichloroethylene	U		0.0680	0.227								
1,2,4-Trimethylbenzene	U		0.0764	0.255								
1,3,5-Trimethylbenzene	U		0.0779	0.260								
2,2,4-Trimethylpentane	U		0.133	0.443								
Vinyl chloride	U		0.0949	0.316								
Vinyl Bromide	U		0.0852	0.284								
Vinyl acetate	U		0.116	0.387								
m&p-Xylene	U		0.135	0.450								
o-Xylene	U		0.0828	0.276								
(S) 1,4-Bromofluorobenzene	99.8			60.0-140								

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3795307-1 05/24/22 08:56 • (LCSD) R3795307-2 05/24/22 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Allyl Chloride	3.75	4.29	4.43	114	118	70.0-130			3.21	25
Benzene	3.75	4.00	3.94	107	105	70.0-130			1.51	25
Benzyl Chloride	3.75	4.08	4.12	109	110	70.0-152			0.976	25
Bromodichloromethane	3.75	3.79	3.81	101	102	70.0-130			0.526	25
Bromoform	3.75	3.71	3.73	98.9	99.5	70.0-130			0.538	25
Bromomethane	3.75	3.89	3.88	104	103	70.0-130			0.257	25
1,3-Butadiene	3.75	3.91	3.93	104	105	70.0-130			0.510	25
Carbon disulfide	3.75	4.08	4.06	109	108	70.0-130			0.491	25

QUALITY CONTROL SUMMARY

L1496163-01

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3795307-1 05/24/22 08:56 • (LCSD) R3795307-2 05/24/22 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Carbon tetrachloride	3.75	3.73	3.78	99.5	101	70.0-130			1.33	25
Chlorobenzene	3.75	3.86	3.82	103	102	70.0-130			1.04	25
Chloroethane	3.75	4.00	3.98	107	106	70.0-130			0.501	25
Chloroform	3.75	3.86	3.87	103	103	70.0-130			0.259	25
Chloromethane	3.75	4.06	4.06	108	108	70.0-130			0.000	25
2-Chlorotoluene	3.75	3.93	3.93	105	105	70.0-130			0.000	25
Cyclohexane	3.75	4.07	4.07	109	109	70.0-130			0.000	25
Dibromochloromethane	3.75	3.77	3.77	101	101	70.0-130			0.000	25
1,2-Dibromoethane	3.75	3.87	3.86	103	103	70.0-130			0.259	25
1,2-Dichlorobenzene	3.75	3.91	3.95	104	105	70.0-130			1.02	25
1,3-Dichlorobenzene	3.75	3.98	3.96	106	106	70.0-130			0.504	25
1,4-Dichlorobenzene	3.75	3.96	3.94	106	105	70.0-130			0.506	25
1,2-Dichloroethane	3.75	3.75	3.74	100	99.7	70.0-130			0.267	25
1,1-Dichloroethane	3.75	4.03	4.01	107	107	70.0-130			0.498	25
1,1-Dichloroethene	3.75	3.99	4.00	106	107	70.0-130			0.250	25
cis-1,2-Dichloroethene	3.75	4.06	4.05	108	108	70.0-130			0.247	25
trans-1,2-Dichloroethene	3.75	4.09	4.13	109	110	70.0-130			0.973	25
1,2-Dichloropropane	3.75	4.02	4.00	107	107	70.0-130			0.499	25
cis-1,3-Dichloropropene	3.75	3.91	3.88	104	103	70.0-130			0.770	25
trans-1,3-Dichloropropene	3.75	3.88	3.86	103	103	70.0-130			0.517	25
1,4-Dioxane	3.75	4.00	4.07	107	109	70.0-140			1.73	25
Ethanol	3.75	4.00	4.03	107	107	55.0-148			0.747	25
Ethylbenzene	3.75	4.00	3.97	107	106	70.0-130			0.753	25
4-Ethyltoluene	3.75	4.06	4.08	108	109	70.0-130			0.491	25
Trichlorofluoromethane	3.75	3.71	3.75	98.9	100	70.0-130			1.07	25
Dichlorodifluoromethane	3.75	3.77	3.81	101	102	64.0-139			1.06	25
1,1,2-Trichlorotrifluoroethane	3.75	3.93	3.92	105	105	70.0-130			0.255	25
1,2-Dichlorotetrafluoroethane	3.75	3.91	3.94	104	105	70.0-130			0.764	25
Heptane	3.75	4.17	4.09	111	109	70.0-130			1.94	25
Hexachloro-1,3-butadiene	3.75	3.75	3.77	100	101	70.0-151			0.532	25
n-Hexane	3.75	4.20	4.18	112	111	70.0-130			0.477	25
Isopropylbenzene	3.75	4.07	4.09	109	109	70.0-130			0.490	25
Methylene Chloride	3.75	3.80	3.78	101	101	70.0-130			0.528	25
Methyl Butyl Ketone	3.75	4.16	4.12	111	110	70.0-149			0.966	25
Methyl Ethyl Ketone	3.75	4.08	4.16	109	111	70.0-130			1.94	25
4-Methyl-2-pentanone (MIBK)	3.75	4.18	4.16	111	111	70.0-139			0.480	25
Methyl Methacrylate	3.75	3.96	3.96	106	106	70.0-130			0.000	25
MTBE	3.75	4.00	4.05	107	108	70.0-130			1.24	25
Naphthalene	3.75	4.07	4.08	109	109	70.0-159			0.245	25
Propene	3.75	3.95	3.99	105	106	64.0-144			1.01	25

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

QUALITY CONTROL SUMMARY

[L1496163-01](#)

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3795307-1 05/24/22 08:56 • (LCSD) R3795307-2 05/24/22 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Styrene	3.75	4.09	4.09	109	109	70.0-130			0.000	25
1,1,2,2-Tetrachloroethane	3.75	3.98	3.96	106	106	70.0-130			0.504	25
Tetrahydrofuran	3.75	4.16	4.18	111	111	70.0-137			0.480	25
Toluene	3.75	3.99	3.95	106	105	70.0-130			1.01	25
1,2,4-Trichlorobenzene	3.75	3.88	3.93	103	105	70.0-160			1.28	25
1,1,1-Trichloroethane	3.75	3.74	3.76	99.7	100	70.0-130			0.533	25
1,1,2-Trichloroethane	3.75	3.92	3.84	105	102	70.0-130			2.06	25
Trichloroethylene	3.75	3.88	3.82	103	102	70.0-130			1.56	25
1,2,4-Trimethylbenzene	3.75	4.08	4.10	109	109	70.0-130			0.489	25
1,3,5-Trimethylbenzene	3.75	4.03	3.99	107	106	70.0-130			0.998	25
2,2,4-Trimethylpentane	3.75	4.20	4.20	112	112	70.0-130			0.000	25
Vinyl chloride	3.75	4.03	4.00	107	107	70.0-130			0.747	25
Vinyl Bromide	3.75	3.87	3.87	103	103	70.0-130			0.000	25
Vinyl acetate	3.75	4.05	4.11	108	110	70.0-130			1.47	25
m&p-Xylene	7.50	8.06	8.03	107	107	70.0-130			0.373	25
o-Xylene	3.75	4.01	3.99	107	106	70.0-130			0.500	25
(S) 14-Bromofluorobenzene			99.5	99.9	60.0-140					

Sample Narrative:

LCSD: Lowest possible dilution due to low sample volume.

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

WG1869364

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

[L1496163-01](#)

Method Blank (MB)

(MB) R3795807-3 05/25/22 09:51

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.95
2-Propanol	U		0.264	0.880
Tetrachloroethylene	U		0.0814	0.271
(S) 1,4-Bromofluorobenzene	94.6		60.0-140	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3795807-1 05/25/22 08:47 • (LCSD) R3795807-2 05/25/22 09:20

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.74	3.85	99.7	103	70.0-130			2.90	25
2-Propanol	3.75	3.96	3.99	106	106	70.0-139			0.755	25
Tetrachloroethylene	3.75	3.75	3.80	100	101	70.0-130			1.32	25
(S) 1,4-Bromofluorobenzene			96.4	96.9	60.0-140					

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
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ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address:
Lord and Winter, LLC

231 Public Square
Suite 300 - PMB44

Billing Information:
**Accounts Payable
231 Public Square
Suite 300 - PMB44
Franklin, TN 37064**

Email To:
Jonathan.odekirk@lorgendwinter.com

Analysis

Chain of Custody Page ____ of ____

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody
constitutes acknowledgment and acceptance
of the Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **L49d63**

C199

Tal

Acctnum: **LORWINNTN**

Template: **T209191**

Prelogin: **P924021**

PM: 3500 - Jennifer Gambill

PB: *Jen Gambill*

Shipped Via: **Courier**

Rem./Contaminant Sample # (lab only)

-01

Report To:
Jonathan Odekirk

Project **802 W Main-Ashland**
Description:

Phone: **850-502-6434**

Collected by (print):
David Winter

Collected by (signature):
D

City/State
Collected:

Please Circle:
PT MT CT ET

Lab Project #
LORWINNTN-WI

P.O. #

Date Results Needed

Collection Canister Pressure/Vacuum

TO-15 Summa

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

SV1

020180

010997

5-19-22

1203

-22

-5

X

M

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
COC Signed/Accurate: Y N VOA Zero Headspace: Y N
Bottles arrive intact: Y N Pres.Correct/Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

Remarks:

Samples returned via:
 UPS FedEx Courier

Tracking #

Hold #

Condition: (lab use only)

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Condition: (lab use only)

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

COC Seal Intact: Y N NA

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

NCF: