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June 19, 2024
File No. 20.0156045.00

Mr. Tim Alessi, NR Region Program Manager
Wisconsin Department of Natural Resources
1027 West St. Paul Avenue
Milwaukee, Wisconsin 53233

Re: Notification of Groundwater Sampling Results - May 2024
Former Leather-Rich, Inc. Facility
1250 Corporate Center Drive
Oconomowoc, Wisconsin
BRRTS #02-68-581237

Dear Mr. Alessi:

On behalf of Leather-Rich, Inc. (Leather-Rich), GZA GeoEnvironmental, Inc. (GZA) is providing the Wisconsin Department of Natural Resources (WDNR) with the May 2024 groundwater sampling results collected at the former Leather-Rich facility located at 1250 Corporate Center Drive in Oconomowoc, Wisconsin ("Site"). This letter presents a summary of recent Site remedial and performance monitoring history, the May 2024 groundwater sampling activities, and the May 2024 groundwater analytical results. Please note that this letter is subject to the Limitations provided in **Attachment 1**.

BACKGROUND

In May 2022, GZA injected an emulsified vegetable oil (EVO) and sodium lactate solution at two select locations of the Site as an interim remedial action to evaluate the use of ERD as a groundwater remediation alternative. The injection and subsequent performance monitoring activities were conducted in accordance with the *WDNR Review Fee for the Project Update, Interim Remediation Design and Specifications, and Temporary Exemption Request for Groundwater Remedial Action Report*, dated February 1, 2022,¹ and approved by the WDNR on March 21, 2022. The *Remedial Implementation Report*,² which documented the injection activities, was previously submitted to the WDNR on September 16, 2022. The *Enhanced Reductive Dechlorination Performance Monitoring Report*,³ which documented the groundwater performance and an evaluation of ERD as a viable remedial alternative, was previously submitted to the WDNR on June 8, 2023.

¹ *WDNR Review Fee for the Project Update, Interim Remediation Design and Specifications, and Temporary Exemption Request for Groundwater Remedial Action, Leather-Rich Inc., 1250 Corporate Center Drive, Oconomowoc, Wisconsin, BRRTS #02-68-581237 and #06-68-58959*, dated February 1, 2022, GZA File No. 20.0156045.00.

² *Remedial Implementation Report, Leather-Rich Inc., 1250 Corporate Center Drive, Oconomowoc, Wisconsin, BRRTS #02-68-581237*, dated September 16, 2022, GZA File No. 20.0156045.02.

³ *Enhanced Reductive Dechlorination Performance Monitoring Report, Leather-Rich Inc., 1250 Corporate Center Drive, Oconomowoc, Wisconsin, BRRTS #02-68-581237*, dated June 8, 2023, GZA File No. 20.0156045.02.



GROUNDWATER INVESTIGATION

On May 22 and 23, 2024, GZA collected groundwater samples from six existing monitoring wells at the Site (MW-1, MW-6, MW-7, MW-9, MW-13, and MW-17), as shown on **Figure 1**. One monitoring well (MW-9) is located inside of the building, outside of the anticipated influence of the ERD injection area, and provides groundwater conditions near the former containment area. Three monitoring wells (MW-6, MW-7, and MW-1) are located immediately outside and north of the building in the ERD injection area, and provide groundwater conditions downgradient of the source area in the vicinity of the remedial injections. Two monitoring wells (MW-13 and MW-17) are located near the northwest perimeter of the Site and provide groundwater conditions in the vicinity of the perimeter remedial injections.

Prior to purging, the depth to groundwater relative to the top of casing was measured. The monitoring wells were purged and sampled using low-flow sampling techniques with a peristaltic pump and dedicated disposable polyethylene tubing to ensure that the groundwater in the wells was representative of aquifer conditions prior to sample collection. During purging, field parameters (temperature, pH, dissolved oxygen [DO], specific conductance, oxidation-reduction potential [ORP], and turbidity) were monitored using a flow-through cell until the parameters stabilized. The groundwater sampling activities and measurements were recorded on a groundwater sampling form.

Following purging, the tubing was disconnected prior to the flow-through cell and groundwater samples were collected in laboratory-supplied sample containers directly from the sample tube. The samples were placed on ice in an insulated cooler and shipped via overnight carrier under chain-of custody control to Pace Analytical® (Pace) in Green Bay, Wisconsin for chlorinated volatile organic compounds (cVOCs) by United States Environmental Protection Agency (USEPA) Method 8260, dissolved iron by USEPA Method 6010D, dissolved gases (ethane, ethene, and methane) by USEPA 8015B Modified, sulfate by Standard Method 300.0, and total organic carbon (TOC) by SM Method 5310C2.

GROUNDWATER ANALYTICAL RESULTS

In accordance with the requirements of Wisconsin Administrative Code (Wis. Adm. Code) NR 716.14(2), the results of the analytical testing are provided on **Table 1** and the laboratory analytical report is provided in **Attachment 2**. The analytical results are compared to the Wis. Adm. Code Enforcement Standards (ESs) and Preventive Action Limits (PALs).

The performance groundwater monitoring analytical results in monitoring wells MW-1, MW-6, MW-7, MW-13, and MW-17 continue to be one to two orders of magnitude below the original concentration in the monitoring wells prior to the injection. The greatest reduction is in monitoring well MW-6, which is on the north side of the building in the suspected source area.

During the May 2024 sampling event, monitoring well MW-9, which is inside of the building west of the containment area, was sampled. The results in this well indicate a stable concentration with a decreasing trend from July 2018 through May 2024.



CLOSING

We trust that this information meets your needs. Should you have questions regarding the attached groundwater analytical testing results, please feel free to contact Mr. Hedinger at (262) 424-1716 or via email at kevin.hedinger@gza.com.

Very truly yours,

GZA GeoEnvironmental, Inc.

A handwritten signature in blue ink that reads 'Stephenson'.

Sheryl I. Stephenson, P.G.
Project Hydrogeologist

A handwritten signature in blue ink that reads 'K. Hedinger'.

Kevin M. Hedinger
Senior Project Manager

A handwritten signature in blue ink that reads 'James Drought'.

James F. Drought, P.H.
Principal Hydrogeologist

J:\156000to156999\156045 Leather Rich\Report\May 2024 Notification\DRAFT 20.0156045.00 Notification of GW Sampling Results_Oconomowoc WI 6-18-24.docx

Attachments: Table 1
Figure 1
Limitations
Laboratory Analytical Report

cc: Ms. Cheryl Chew, Leather-Rich, Inc.
Ms. Delanie Bruer, Fredrickson & Bryron P.A.



TABLES

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Leather-Rich, Inc.
1250 Corporate Center Drive
Oconomowoc, Wisconsin

Parameter	ES (µg/l)	PAL (µg/l)	MW-1	Dup (MW-1)	MW-6	MW-7	MW-9	MW-13	MW-17
			5/22/2024	5/22/2024	5/22/2024	5/22/2024	5/22/2024	5/22/2024	5/22/2024
cVOCs									
Tetrachloroethene	5	0.5	<u>10.1</u>	<u>7.8</u>	< 0.41	<u>11.8</u>	<u>136</u>	<u>7.4</u>	<u>12.3</u>
Trichloroethene	5	0.5	<u>2</u>	<u>1.8</u>	< 0.32	< 0.32	<u>11.1</u>	<i>0.82 J</i>	<u>7.9</u>
Vinyl chloride	0.2	0.02	< 0.17	< 0.17	<u>0.27 J</u>	< 0.17	< 0.17	< 0.17	< 0.17
cis-1,2-Dichloroethene	70	7	1.9	1.7	<u>39.5</u>	< 0.47	< 0.47	1.7	<u>19.1</u>
Sulfate	NS	NS	32,800	--	3,800 J	26,900	18,900	30,100	15,800
Iron, Dissolved	NS	NS	1,060	--	8,370	< 29.6	< 29.6	< 29.6	6420
Total Organic Carbon	NS	NS	2,000	--	5,900	1,300	2,500	1,300	9,000
Ethane	NS	NS	< 0.39	--	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
Ethene	NS	NS	< 0.25	--	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Methane	NS	NS	984	--	5,380	45.3	< 0.58	75.7	1,120

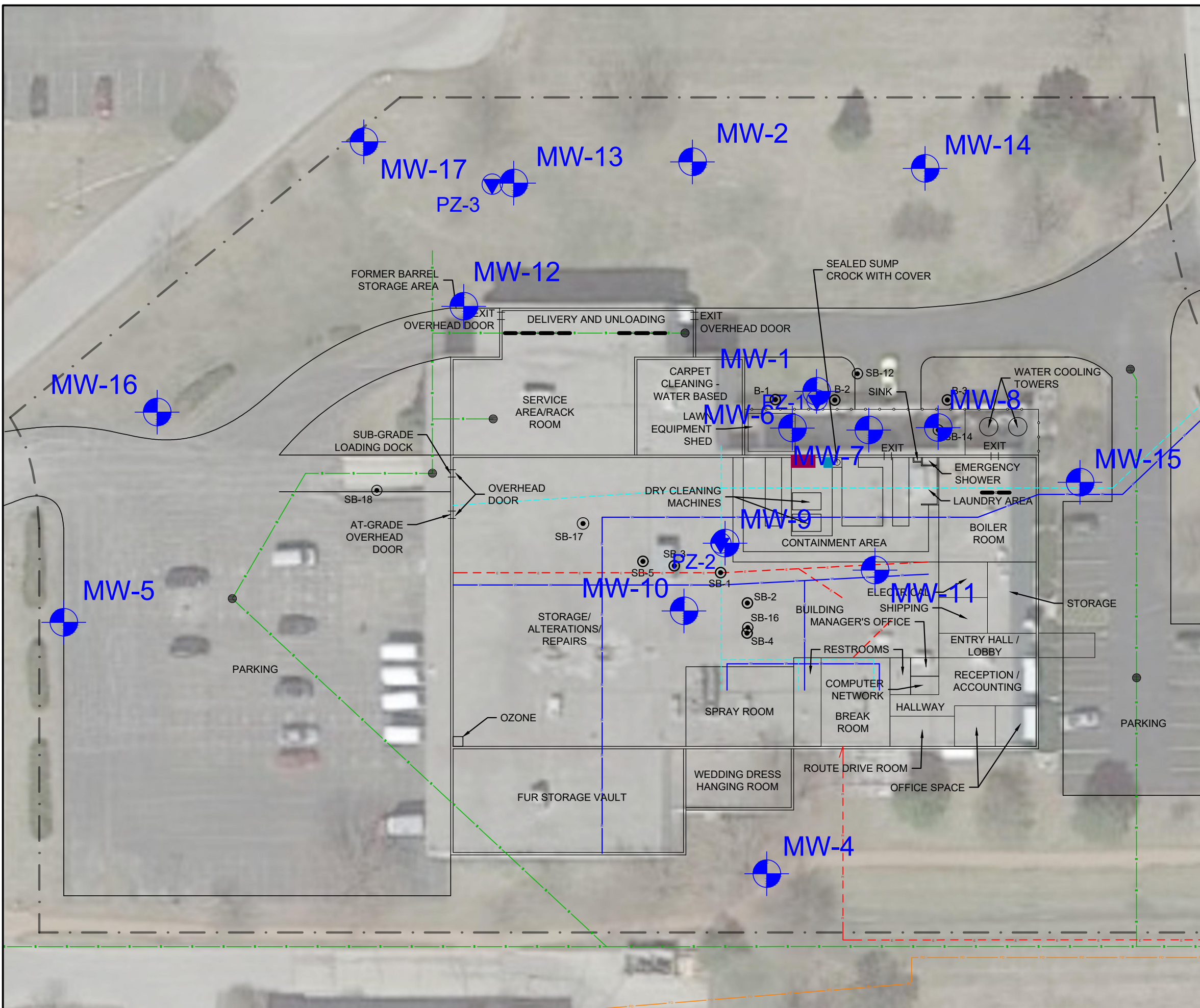
Notes:

1. Samples were collected by GZA GeoEnvironmental, Inc. (GZA) and submitted to Pace® Analytical Services (Pace) for analysis of chlorinated VOCs (cVOCs) by United States Environmental Protection Agency (USEPA) Method 8260, dissolved iron by USEPA Method 6010D, dissolved gases (ethane, ethene, and methane) by USEPA 8015B Modified, sulfate by Standard Method 300.0, and total organic carbon (TOC) by SM Method 5310C2.
2. Results are presented in micrograms per liter (µg/l).
3. Results are compared to Wisconsin Administrative Code (Wis. Adm. Code) Chapter NR 140 Enforcement Standards (ESs) and Preventive Action Limits (PALs). **Underlined Bold Red font** indicates the parameter was detected above the ES and ***Bold italicized font*** indicates the parameter was detected above the PAL.
4. Only results for compounds detected during laboratory analyses are presented.
5. J = Estimated value. The analyte was detected at a concentration between the limit of detection (LOD) and limit of quantification (LOQ).
6. "--" = sample not analyzed for that parameter.
7. "NS" = No Standard available under Wis. Adm. Code NR 140.



FIGURES

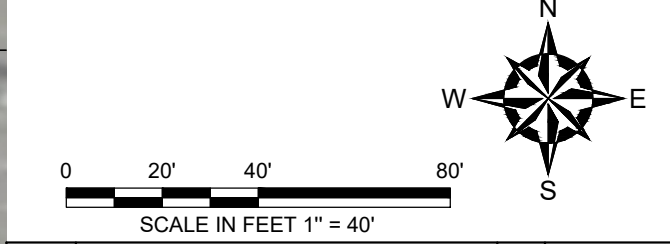
© 2016 - GZA GeoEnvironmental, Inc. GZA-J:\156000T0156999\156045 LEATHER RICH\FIGURES\20.0156045.00_REMEDIAL PERFORMANCE MONITORING REPORT-MAY 2023.DWG FIG 2 - SITE PLAN MAY 31, 2023 KEVIN HEDIN



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL
- PIEZOMETER
- SOIL BORINGS
- DRAIN
- TRENCH DRAIN
- WATER UTILITY
- SANITARY SEWER
- ELECTRIC
- STORM SEWER
- FIBER OPTIC / INTERNET
- PCE FILTRATION UNIT
- PCE ABOVE GROUND STORAGE TANK REMOVED IN 2019

- ### NOTES
1. BASE MAP DEVELOPED FROM A GOOGLE PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS PUBLISHED BY THE U.S.G.S.
 2. THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.
 3. THE LOCATION OF THE EXPLORATIONS WERE APPROXIMATELY DETERMINED BY LINE OF SIGHT AND/OR TAPE MEASUREMENTS FROM EXISTING TOPOGRAPHIC FEATURES. THESE LOCATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
 4. THE APPROXIMATE LOCATION OF THE SITE BOUNDARY WAS OBTAINED THROUGH USE OF THE LOCAL COUNTY ONLINE GIS MAPPING TOOL. THE PROGRAM NOTES THAT ALL PROPERTY BOUNDARIES ARE NOT SURVEYED AND ARE ONLY APPROXIMATE REPRESENTATIONS OF ACTUAL BOUNDARIES.



NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

ENHANCED REDUCTIVE DECHLORINATION PERFORMANCE MONITORING REPORT

SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: LEATHER - RICH, INC. 1250 CORPORATE CENTER DRIVE OCONOMOWOC, WI 53066	
PROJ MGR: HAW DESIGNED BY: SIS DATE: 9/12/2022	REVIEWED BY: KMH DRAWN BY: PLR PROJECT NO.: 20.0156045.02	CHECKED BY: SIS SCALE: see above REVISION NO.	FIG <h1 style="text-align: center;">1</h1> SHEET NO. OF



ATTACHMENT 1

Limitations



LIMITATIONS

STANDARD OF CARE

1. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this Report may be found at the subject location(s).
2. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
3. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

4. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this Report.
5. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

6. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

7. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the Report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
8. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
9. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.



INTERPRETATION OF DATA

10. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

11. In the event that the Client or others authorized to use this Report obtain additional information on environmental or hazardous waste issues at the Site not contained in this Report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.

ADDITIONAL SERVICES

12. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



ATTACHMENT 2

Laboratory Analytical Report



June 03, 2024

Sheryl Stephenson
GZA GeoEnvironmental
17975 West Sarah Lane
Suite 100
Brookfield, WI 53045

RE: Project: 20.0156045.00
Pace Project No.: 40278695

Dear Sheryl Stephenson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20.0156045.00

Pace Project No.: 40278695

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20.0156045.00

Pace Project No.: 40278695

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40278695001	MW-9	Water	05/22/24 10:10	05/23/24 09:15
40278695002	MW-6	Water	05/22/24 11:30	05/23/24 09:15
40278695003	MW-7	Water	05/22/24 12:45	05/23/24 09:15
40278695004	MW-1	Water	05/22/24 13:50	05/23/24 09:15
40278695005	MW-13	Water	05/22/24 15:00	05/23/24 09:15
40278695007	DUP-1	Water	05/22/24 00:00	05/23/24 09:15
40278695008	TRIP BLANK	Water	05/22/24 00:00	05/23/24 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20.0156045.00

Pace Project No.: 40278695

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40278695001	MW-9	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	NB	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40278695002	MW-6	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	EIB	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40278695003	MW-7	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	NB	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40278695004	MW-1	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	NB	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40278695005	MW-13	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	NB	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40278695007	DUP-1	EPA 8260	EIB	8	PASI-G
40278695008	TRIP BLANK	EPA 8260	NB	8	PASI-G

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 20.0156045.00

Pace Project No.: 40278695

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40278695001	MW-9					
EPA 8260	Tetrachloroethene	136	ug/L	1.0	05/24/24 19:40	
EPA 8260	Trichloroethene	11.1	ug/L	1.0	05/24/24 19:40	
EPA 300.0	Sulfate	18.9	mg/L	2.0	05/24/24 13:15	
SM 5310C	Total Organic Carbon	2.5	mg/L	0.50	05/29/24 23:01	
40278695002	MW-6					
EPA 8015B Modified	Methane	5380	ug/L	350	05/29/24 14:23	
EPA 6010D	Iron, Dissolved	8370	ug/L	100	05/24/24 18:10	
EPA 8260	Vinyl chloride	0.27J	ug/L	1.0	05/28/24 11:06	
EPA 8260	cis-1,2-Dichloroethene	39.5	ug/L	1.0	05/28/24 11:06	
EPA 300.0	Sulfate	3.8J	mg/L	10.0	05/24/24 14:00	D3
SM 5310C	Total Organic Carbon	5.9	mg/L	3.0	05/30/24 07:22	
40278695003	MW-7					
EPA 8015B Modified	Methane	45.3	ug/L	2.8	05/30/24 14:25	
EPA 8260	Tetrachloroethene	11.8	ug/L	1.0	05/24/24 20:13	
EPA 300.0	Sulfate	26.9	mg/L	2.0	05/24/24 14:15	
SM 5310C	Total Organic Carbon	1.3	mg/L	0.50	05/29/24 23:34	
40278695004	MW-1					
EPA 8015B Modified	Methane	948	ug/L	28.0	05/29/24 14:29	
EPA 6010D	Iron, Dissolved	1060	ug/L	100	05/24/24 18:15	
EPA 8260	Tetrachloroethene	10.1	ug/L	1.0	05/24/24 20:30	
EPA 8260	Trichloroethene	2.0	ug/L	1.0	05/24/24 20:30	
EPA 8260	cis-1,2-Dichloroethene	1.9	ug/L	1.0	05/24/24 20:30	
EPA 300.0	Sulfate	32.8	mg/L	2.0	05/24/24 15:14	
SM 5310C	Total Organic Carbon	2.0	mg/L	0.50	05/29/24 23:53	
40278695005	MW-13					
EPA 8015B Modified	Methane	75.7	ug/L	2.8	05/29/24 12:51	
EPA 8260	Tetrachloroethene	7.4	ug/L	1.0	05/24/24 20:47	
EPA 8260	Trichloroethene	0.82J	ug/L	1.0	05/24/24 20:47	
EPA 8260	cis-1,2-Dichloroethene	1.7	ug/L	1.0	05/24/24 20:47	
EPA 300.0	Sulfate	30.1	mg/L	2.0	05/24/24 15:29	
SM 5310C	Total Organic Carbon	1.3	mg/L	0.50	05/30/24 00:12	
40278695007	DUP-1					
EPA 8260	Tetrachloroethene	7.8	ug/L	1.0	05/28/24 10:46	
EPA 8260	Trichloroethene	1.8	ug/L	1.0	05/28/24 10:46	
EPA 8260	cis-1,2-Dichloroethene	1.7	ug/L	1.0	05/28/24 10:46	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278695

Sample: MW-9 Lab ID: 40278695001 Collected: 05/22/24 10:10 Received: 05/23/24 09:15 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/29/24 11:53	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/29/24 11:53	74-85-1	
Methane	<0.58	ug/L	2.8	0.58	1		05/29/24 11:53	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D Pace Analytical Services - Green Bay									
Iron, Dissolved	<29.6	ug/L	100	29.6	1		05/24/24 18:04	7439-89-6	
8260 MSV									
Analytical Method: EPA 8260 Pace Analytical Services - Green Bay									
Tetrachloroethene	136	ug/L	1.0	0.41	1		05/24/24 19:40	127-18-4	
Trichloroethene	11.1	ug/L	1.0	0.32	1		05/24/24 19:40	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/24/24 19:40	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		05/24/24 19:40	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/24/24 19:40	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		05/24/24 19:40	2199-69-1	
4-Bromofluorobenzene (S)	95	%	70-130		1		05/24/24 19:40	460-00-4	
Toluene-d8 (S)	97	%	70-130		1		05/24/24 19:40	2037-26-5	
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Sulfate	18.9	mg/L	2.0	0.44	1		05/24/24 13:15	14808-79-8	
5310C TOC									
Analytical Method: SM 5310C Pace Analytical Services - Green Bay									
Total Organic Carbon	2.5	mg/L	0.50	0.19	1		05/29/24 23:01	7440-44-0	

Sample: MW-6 Lab ID: 40278695002 Collected: 05/22/24 11:30 Received: 05/23/24 09:15 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/29/24 12:00	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/29/24 12:00	74-85-1	
Methane	5380	ug/L	350	72.0	125		05/29/24 14:23	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D Pace Analytical Services - Green Bay									
Iron, Dissolved	8370	ug/L	100	29.6	1		05/24/24 18:10	7439-89-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278695

Sample: MW-6 Lab ID: 40278695002 Collected: 05/22/24 11:30 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		05/28/24 11:06	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		05/28/24 11:06	79-01-6	
Vinyl chloride	0.27J	ug/L	1.0	0.17	1		05/28/24 11:06	75-01-4	
cis-1,2-Dichloroethene	39.5	ug/L	1.0	0.47	1		05/28/24 11:06	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/28/24 11:06	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	94	%	70-130		1		05/28/24 11:06	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130		1		05/28/24 11:06	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		05/28/24 11:06	2037-26-5	
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Sulfate	3.8J	mg/L	10.0	2.2	5		05/24/24 14:00	14808-79-8	D3
5310C TOC									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Total Organic Carbon	5.9	mg/L	3.0	1.1	6		05/30/24 07:22	7440-44-0	

Sample: MW-7 Lab ID: 40278695003 Collected: 05/22/24 12:45 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/30/24 14:25	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/30/24 14:25	74-85-1	
Methane	45.3	ug/L	2.8	0.58	1		05/30/24 14:25	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Iron, Dissolved	<29.6	ug/L	100	29.6	1		05/24/24 18:13	7439-89-6	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	11.8	ug/L	1.0	0.41	1		05/24/24 20:13	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		05/24/24 20:13	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/24/24 20:13	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		05/24/24 20:13	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/24/24 20:13	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%	70-130		1		05/24/24 20:13	2199-69-1	
4-Bromofluorobenzene (S)	96	%	70-130		1		05/24/24 20:13	460-00-4	
Toluene-d8 (S)	100	%	70-130		1		05/24/24 20:13	2037-26-5	

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278695

Sample: MW-7 **Lab ID: 40278695003** Collected: 05/22/24 12:45 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Sulfate	26.9	mg/L	2.0	0.44	1		05/24/24 14:15	14808-79-8	
5310C TOC									
Analytical Method: SM 5310C Pace Analytical Services - Green Bay									
Total Organic Carbon	1.3	mg/L	0.50	0.19	1		05/29/24 23:34	7440-44-0	

Sample: MW-1 **Lab ID: 40278695004** Collected: 05/22/24 13:50 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/29/24 12:44	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/29/24 12:44	74-85-1	
Methane	948	ug/L	28.0	5.8	10		05/29/24 14:29	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D Pace Analytical Services - Green Bay									
Iron, Dissolved	1060	ug/L	100	29.6	1		05/24/24 18:15	7439-89-6	
8260 MSV									
Analytical Method: EPA 8260 Pace Analytical Services - Green Bay									
Tetrachloroethene	10.1	ug/L	1.0	0.41	1		05/24/24 20:30	127-18-4	
Trichloroethene	2.0	ug/L	1.0	0.32	1		05/24/24 20:30	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/24/24 20:30	75-01-4	
cis-1,2-Dichloroethene	1.9	ug/L	1.0	0.47	1		05/24/24 20:30	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/24/24 20:30	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		05/24/24 20:30	2199-69-1	
4-Bromofluorobenzene (S)	96	%	70-130		1		05/24/24 20:30	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		05/24/24 20:30	2037-26-5	
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Sulfate	32.8	mg/L	2.0	0.44	1		05/24/24 15:14	14808-79-8	
5310C TOC									
Analytical Method: SM 5310C Pace Analytical Services - Green Bay									
Total Organic Carbon	2.0	mg/L	0.50	0.19	1		05/29/24 23:53	7440-44-0	

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278695

Sample: MW-13 **Lab ID: 40278695005** Collected: 05/22/24 15:00 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/29/24 12:51	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/29/24 12:51	74-85-1	
Methane	75.7	ug/L	2.8	0.58	1		05/29/24 12:51	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Iron, Dissolved	<29.6	ug/L	100	29.6	1		05/24/24 18:17	7439-89-6	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	7.4	ug/L	1.0	0.41	1		05/24/24 20:47	127-18-4	
Trichloroethene	0.82J	ug/L	1.0	0.32	1		05/24/24 20:47	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/24/24 20:47	75-01-4	
cis-1,2-Dichloroethene	1.7	ug/L	1.0	0.47	1		05/24/24 20:47	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/24/24 20:47	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%	70-130		1		05/24/24 20:47	2199-69-1	
4-Bromofluorobenzene (S)	99	%	70-130		1		05/24/24 20:47	460-00-4	
Toluene-d8 (S)	97	%	70-130		1		05/24/24 20:47	2037-26-5	
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Sulfate	30.1	mg/L	2.0	0.44	1		05/24/24 15:29	14808-79-8	
5310C TOC									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Total Organic Carbon	1.3	mg/L	0.50	0.19	1		05/30/24 00:12	7440-44-0	

Sample: DUP-1 **Lab ID: 40278695007** Collected: 05/22/24 00:00 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	7.8	ug/L	1.0	0.41	1		05/28/24 10:46	127-18-4	
Trichloroethene	1.8	ug/L	1.0	0.32	1		05/28/24 10:46	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/28/24 10:46	75-01-4	
cis-1,2-Dichloroethene	1.7	ug/L	1.0	0.47	1		05/28/24 10:46	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/28/24 10:46	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	92	%	70-130		1		05/28/24 10:46	2199-69-1	
4-Bromofluorobenzene (S)	90	%	70-130		1		05/28/24 10:46	460-00-4	
Toluene-d8 (S)	94	%	70-130		1		05/28/24 10:46	2037-26-5	

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278695

Sample: TRIP BLANK Lab ID: 40278695008 Collected: 05/22/24 00:00 Received: 05/23/24 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		05/24/24 16:33	127-18-4	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		05/24/24 16:33	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/24/24 16:33	75-01-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		05/24/24 16:33	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/24/24 16:33	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	94	%	70-130		1		05/24/24 16:33	2199-69-1	
4-Bromofluorobenzene (S)	95	%	70-130		1		05/24/24 16:33	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		05/24/24 16:33	2037-26-5	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278695

QC Batch: 475449	Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 8015B Modified	Analysis Description: Methane, Ethane, Ethene GCV
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

METHOD BLANK: 2723195 Matrix: Water

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<0.39	5.6	05/29/24 10:28	
Ethene	ug/L	<0.25	5.0	05/29/24 10:28	
Methane	ug/L	<0.58	2.8	05/29/24 10:28	

LABORATORY CONTROL SAMPLE & LCSD: 2723196 2723197

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	51.9	56.6	97	106	74-122	9	20	
Ethene	ug/L	50	48.1	52.3	96	105	74-121	8	20	
Methane	ug/L	28.6	27.0	29.8	95	104	73-121	10	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723198 2723199

Parameter	Units	40278807003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<0.39	53.6	53.6	53.8	54.6	100	102	71-120	2	20	
Ethene	ug/L	<0.25	50	50	49.7	50.4	99	101	69-120	1	20	
Methane	ug/L	1.6J	28.6	28.6	29.9	30.5	99	101	10-184	2	33	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278695

QC Batch: 475310	Analysis Method: EPA 6010D
QC Batch Method: EPA 6010D	Analysis Description: ICP Metals, Trace, Dissolved
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

METHOD BLANK: 2722542 Matrix: Water
 Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<29.6	100	05/24/24 18:00	

LABORATORY CONTROL SAMPLE: 2722543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	10200	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2722544 2722545

Parameter	Units	2722544		2722545		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278695001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Iron, Dissolved	ug/L	<29.6	10000	10000	9700	9700	97	97	75-125	0	20	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278695

QC Batch:	475279	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005, 40278695007, 40278695008

METHOD BLANK: 2722064 Matrix: Water
 Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005, 40278695007, 40278695008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	05/24/24 11:13	
Tetrachloroethene	ug/L	<0.41	1.0	05/24/24 11:13	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	05/24/24 11:13	
Trichloroethene	ug/L	<0.32	1.0	05/24/24 11:13	
Vinyl chloride	ug/L	<0.17	1.0	05/24/24 11:13	
1,2-Dichlorobenzene-d4 (S)	%	95	70-130	05/24/24 11:13	
4-Bromofluorobenzene (S)	%	97	70-130	05/24/24 11:13	
Toluene-d8 (S)	%	98	70-130	05/24/24 11:13	

LABORATORY CONTROL SAMPLE: 2722065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	52.9	106	70-130	
Tetrachloroethene	ug/L	50	49.0	98	70-130	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	70-131	
Trichloroethene	ug/L	50	52.2	104	70-130	
Vinyl chloride	ug/L	50	40.5	81	51-145	
1,2-Dichlorobenzene-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278695

QC Batch: 475224	Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0	Analysis Description: 300.0 IC Anions
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

METHOD BLANK: 2721790 Matrix: Water
 Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	05/24/24 12:01	

LABORATORY CONTROL SAMPLE: 2721791

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	21.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2721792 2721793

Parameter	Units	2721792		2721793		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278695001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Sulfate	mg/L	18.9	20	20	40.0	39.3	105	102	90-110	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2721794 2721795

Parameter	Units	2721794		2721795		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278638001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Sulfate	mg/L	80.3	200	200	295	293	107	107	90-110	1	15	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278695

QC Batch: 475594	Analysis Method: SM 5310C
QC Batch Method: SM 5310C	Analysis Description: 5310C Total Organic Carbon
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

METHOD BLANK: 2723970 Matrix: Water
 Associated Lab Samples: 40278695001, 40278695002, 40278695003, 40278695004, 40278695005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.19	0.50	05/29/24 22:28	

LABORATORY CONTROL SAMPLE: 2723971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	12.1	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723972 2723973

Parameter	Units	2723972		2723973		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278798001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Total Organic Carbon	mg/L	9.0	6	6	14.7	14.9	96	99	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723974 2723975

Parameter	Units	2723974		2723975		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278807003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Total Organic Carbon	mg/L	0.97	6	6	5.7	5.8	79	81	80-120	2	10 M0	

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QUALIFIERS

Project: 20.0156045.00

Pace Project No.: 40278695

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20.0156045.00

Pace Project No.: 40278695

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40278695001	MW-9	EPA 8015B Modified	475449		
40278695002	MW-6	EPA 8015B Modified	475449		
40278695003	MW-7	EPA 8015B Modified	475449		
40278695004	MW-1	EPA 8015B Modified	475449		
40278695005	MW-13	EPA 8015B Modified	475449		
40278695001	MW-9	EPA 6010D	475310		
40278695002	MW-6	EPA 6010D	475310		
40278695003	MW-7	EPA 6010D	475310		
40278695004	MW-1	EPA 6010D	475310		
40278695005	MW-13	EPA 6010D	475310		
40278695001	MW-9	EPA 8260	475279		
40278695002	MW-6	EPA 8260	475279		
40278695003	MW-7	EPA 8260	475279		
40278695004	MW-1	EPA 8260	475279		
40278695005	MW-13	EPA 8260	475279		
40278695007	DUP-1	EPA 8260	475279		
40278695008	TRIP BLANK	EPA 8260	475279		
40278695001	MW-9	EPA 300.0	475224		
40278695002	MW-6	EPA 300.0	475224		
40278695003	MW-7	EPA 300.0	475224		
40278695004	MW-1	EPA 300.0	475224		
40278695005	MW-13	EPA 300.0	475224		
40278695001	MW-9	SM 5310C	475594		
40278695002	MW-6	SM 5310C	475594		
40278695003	MW-7	SM 5310C	475594		
40278695004	MW-1	SM 5310C	475594		
40278695005	MW-13	SM 5310C	475594		

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CHAIN-OF-CUSTODY Analytical Request Document
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here



40278695

Scan QR Code for instructions

Company Name: GZA GeoEnvironmental_WI
 Street Address: 17975 West Sarah Lane, Suite 100
 Brookfield, WI 53045

Contact/Report To: Sheryl Stephenson
 Phone #: (262)754-2597
 E-Mail: sheryl.stephenson@gza.com
 Cc E-Mail: kevin.headinger@gza.com

Customer Project #: 20.0156045 00
 Project Name:
 Site Collection Info/Facility ID (as applicable):

Time Zone Collected: [] AK [] PT [] MT [] CT [] ET
 County / State origin of sample(s): Wisconsin

Specify Container Size **
 3 4 3 6 6

Identify Container Preservative Type***
 1 3 2 4 4

Analysis Requested

**Container Size (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Data Deliverables: [] Level II [] Level III [] Level IV
 [] EQUIS
 [] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [] Yes [] No

Rush (Pre-approval required):
 [] Same Day [] 1 Day [] 2 Day [] 3 Day [] Other

Date Results Requested:
 Field Filtered (if applicable) Yes [] No
 Analysis: Dissolved Iron

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine		300 0 Sulfate	5310C TOC	6010D Dissolved Iron	8015 Methane, Ethane, Ethene	8260 CVOCS	Lab Use Only	Sample Comment
			Date	Time	Date	Time		Results	Units							
MW-9	GW	Grab	—	—	5/22/24	1010	9			X	X	X	X		001	
MW-6	GW	Grab	—	—	5/22/24	1130	9			X	X	X	X		002	
MW-7	GW	Grab	—	—	5/22/24	1245	9			X	X	X	X		003	
MW-1	GW	Grab	—	—	5/22/24	1350	9			X	X	X	X		004	
MW-13	GW	Grab	—	—	5/22/24	1500	9			X	X	X	X		005	
MW-17	GW	Grab	—	—	5/22/24	1650	9			X	X	X	X		006	
DVD-1 Trip Blank	GW	Grab	—	—	5/22/24	—	3								007	
															008	

Additional Instructions from Pace*
 Recovered, lab added to coc 5/23/24 SG
 MW-17 canceled per Sheryl S-GZA. 5/23/24 CDH

Collected By (Printed Name):
 Signature:

Customer Remarks / Special Conditions / Possible Hazards

Coolers Thermometer ID. Correction Factor (°C) Obs Temp (°C) Corrected Temp. (°C) On Ice

Relinquished by/Company (Signature): <i>[Signature]</i> Date/Time: 5/22/24 1815	Received by/Company (Signature): <i>[Signature]</i> Date/Time: 5/22/24 1815	Tracking Number
Relinquished by/Company (Signature): <i>[Signature]</i> Date/Time: 5/23/24 0915	Received by/Company (Signature): <i>[Signature]</i> Date/Time: 5/23/24 0915	Delivered by. [] In-Person [] Courier
Relinquished by/Company (Signature): Date/Time:	Received by/Company (Signature): Date/Time:	[] FedEx [] UPS [] Other
Relinquished by/Company (Signature): Date/Time:	Received by/Company (Signature): Date/Time:	Page: of

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: COZA

WO#: 40278695



Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Tracking #: _____

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

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR-139 Type of Ice: Wet Blue Dry None Meltwater Only

Cooler Temperature Uncorr: -0.5 / Corr: 0.0

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
 Date: 5/23/24 / Initials: SG
 Labeled By Initials: GF

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>received, lab added to coc</u>
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>517</u>		<u>5/23/24 SG</u>

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir



June 03, 2024

Sheryl Stephenson
GZA GeoEnvironmental
17975 West Sarah Lane
Suite 100
Brookfield, WI 53045

RE: Project: 20.0156045.00
Pace Project No.: 40278798

Dear Sheryl Stephenson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 24, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,

A handwritten signature in black ink that reads "Cindy K Varga".

Cindy Varga for
Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20.0156045.00

Pace Project No.: 40278798

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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SAMPLE SUMMARY

Project: 20.0156045.00
Pace Project No.: 40278798

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40278798001	MW-17	Water	05/23/24 11:55	05/24/24 08:00

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SAMPLE ANALYTE COUNT

Project: 20.0156045.00
Pace Project No.: 40278798

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40278798001	MW-17	EPA 8015B Modified	KHB	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8260	CXJ	8	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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SUMMARY OF DETECTION

Project: 20.0156045.00

Pace Project No.: 40278798

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40278798001	MW-17					
EPA 8015B Modified	Methane	1120	ug/L	28.0	05/29/24 14:36	
EPA 6010D	Iron, Dissolved	6420	ug/L	100	05/31/24 14:08	
EPA 8260	Tetrachloroethene	12.3	ug/L	1.0	05/28/24 23:41	
EPA 8260	Trichloroethene	7.9	ug/L	1.0	05/28/24 23:41	
EPA 8260	cis-1,2-Dichloroethene	19.1	ug/L	1.0	05/28/24 23:41	
EPA 300.0	Sulfate	15.8	mg/L	2.0	05/29/24 11:32	M0
SM 5310C	Total Organic Carbon	9.0	mg/L	0.50	05/30/24 01:05	

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ANALYTICAL RESULTS

Project: 20.0156045.00

Pace Project No.: 40278798

Sample: MW-17 **Lab ID: 40278798001** Collected: 05/23/24 11:55 Received: 05/24/24 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV									
Analytical Method: EPA 8015B Modified									
Pace Analytical Services - Green Bay									
Ethane	<0.39	ug/L	5.6	0.39	1		05/29/24 12:58	74-84-0	
Ethene	<0.25	ug/L	5.0	0.25	1		05/29/24 12:58	74-85-1	
Methane	1120	ug/L	28.0	5.8	10		05/29/24 14:36	74-82-8	
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Iron, Dissolved	6420	ug/L	100	29.6	1		05/31/24 14:08	7439-89-6	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	12.3	ug/L	1.0	0.41	1		05/28/24 23:41	127-18-4	
Trichloroethene	7.9	ug/L	1.0	0.32	1		05/28/24 23:41	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		05/28/24 23:41	75-01-4	
cis-1,2-Dichloroethene	19.1	ug/L	1.0	0.47	1		05/28/24 23:41	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		05/28/24 23:41	156-60-5	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		05/28/24 23:41	2199-69-1	
4-Bromofluorobenzene (S)	104	%	70-130		1		05/28/24 23:41	460-00-4	
Toluene-d8 (S)	102	%	70-130		1		05/28/24 23:41	2037-26-5	
300.0 IC Anions									
Analytical Method: EPA 300.0									
Pace Analytical Services - Green Bay									
Sulfate	15.8	mg/L	2.0	0.44	1		05/29/24 11:32	14808-79-8	M0
5310C TOC									
Analytical Method: SM 5310C									
Pace Analytical Services - Green Bay									
Total Organic Carbon	9.0	mg/L	0.50	0.19	1		05/30/24 01:05	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278798

QC Batch: 475449	Analysis Method: EPA 8015B Modified
QC Batch Method: EPA 8015B Modified	Analysis Description: Methane, Ethane, Ethene GCV
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278798001

METHOD BLANK: 2723195 Matrix: Water

Associated Lab Samples: 40278798001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<0.39	5.6	05/29/24 10:28	
Ethene	ug/L	<0.25	5.0	05/29/24 10:28	
Methane	ug/L	<0.58	2.8	05/29/24 10:28	

LABORATORY CONTROL SAMPLE & LCSD: 2723196 2723197

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	51.9	56.6	97	106	74-122	9	20	
Ethene	ug/L	50	48.1	52.3	96	105	74-121	8	20	
Methane	ug/L	28.6	27.0	29.8	95	104	73-121	10	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723198 2723199

Parameter	Units	40278807003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<0.39	53.6	53.6	53.8	54.6	100	102	71-120	2	20	
Ethene	ug/L	<0.25	50	50	49.7	50.4	99	101	69-120	1	20	
Methane	ug/L	1.6J	28.6	28.6	29.9	30.5	99	101	10-184	2	33	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278798

QC Batch: 475820

Analysis Method: EPA 6010D

QC Batch Method: EPA 6010D

Analysis Description: ICP Metals, Trace, Dissolved

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278798001

METHOD BLANK: 2724993

Matrix: Water

Associated Lab Samples: 40278798001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<29.6	100	05/31/24 13:59	

LABORATORY CONTROL SAMPLE: 2724994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	10200	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2724995 2724996

Parameter	Units	2724995		2724996		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40278746001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Iron, Dissolved	ug/L	<29.6	10000	10000	9480	9440	95	94	75-125	0	20	

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278798

QC Batch: 475343

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278798001

METHOD BLANK: 2722903

Matrix: Water

Associated Lab Samples: 40278798001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	05/28/24 15:20	
Tetrachloroethene	ug/L	<0.41	1.0	05/28/24 15:20	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	05/28/24 15:20	
Trichloroethene	ug/L	<0.32	1.0	05/28/24 15:20	
Vinyl chloride	ug/L	<0.17	1.0	05/28/24 15:20	
1,2-Dichlorobenzene-d4 (S)	%	99	70-130	05/28/24 15:20	
4-Bromofluorobenzene (S)	%	101	70-130	05/28/24 15:20	
Toluene-d8 (S)	%	104	70-130	05/28/24 15:20	

LABORATORY CONTROL SAMPLE: 2722904

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	50.8	102	70-130	
Tetrachloroethene	ug/L	50	52.4	105	70-130	
trans-1,2-Dichloroethene	ug/L	50	56.0	112	70-131	
Trichloroethene	ug/L	50	53.5	107	70-130	
Vinyl chloride	ug/L	50	44.0	88	51-145	
1,2-Dichlorobenzene-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2722905 2722906

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40278827005 Result	Spike Conc.	Spike Conc.	MS Result						
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	50.6	49.0	101	98	70-130	3	20
Tetrachloroethene	ug/L	<0.41	50	50	53.5	51.4	107	103	70-131	4	20
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	47.6	46.3	95	93	70-135	3	20
Trichloroethene	ug/L	<0.32	50	50	53.7	52.1	107	104	70-130	3	20
Vinyl chloride	ug/L	<0.17	50	50	45.2	43.3	90	87	45-147	4	20
1,2-Dichlorobenzene-d4 (S)	%						96	96	70-130		
4-Bromofluorobenzene (S)	%						101	103	70-130		
Toluene-d8 (S)	%						105	104	70-130		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278798

QC Batch: 475309

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278798001

METHOD BLANK: 2722527

Matrix: Water

Associated Lab Samples: 40278798001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	05/29/24 11:05	

LABORATORY CONTROL SAMPLE: 2722528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	21.6	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2722529 2722530

Parameter	Units	40278798001		2722529		2722530		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Sulfate	mg/L	15.8	20	20	38.1	38.3	111	112	90-110	1	15 M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2722531 2722532

Parameter	Units	40278387002		2722531		2722532		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Sulfate	mg/L	0.73J	20	20	23.1	23.2	112	112	90-110	1	15 M0

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20.0156045.00

Pace Project No.: 40278798

QC Batch: 475594

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40278798001

METHOD BLANK: 2723970

Matrix: Water

Associated Lab Samples: 40278798001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.19	0.50	05/29/24 22:28	

LABORATORY CONTROL SAMPLE: 2723971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	12.1	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723972 2723973

Parameter	Units	40278798001		2723972		2723973		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	9.0	9.0	6	6	14.7	14.9	96	99	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2723974 2723975

Parameter	Units	40278807003		2723974		2723975		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Total Organic Carbon	mg/L	0.97	0.97	6	6	5.7	5.8	79	81	80-120	2	10 M0	

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QUALIFIERS

Project: 20.0156045.00

Pace Project No.: 40278798

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20.0156045.00


Pace Project No.: 40278798

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40278798001	MW-17	EPA 8015B Modified	475449		
40278798001	MW-17	EPA 6010D	475820		
40278798001	MW-17	EPA 8260	475343		
40278798001	MW-17	EPA 300.0	475309		
40278798001	MW-17	SM 5310C	475594		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt Form (SCUR)

Project # _____
WO# : 40278798

 40278798

Client Name: GZA

Courier: CS Logistics Fed Ex Speedee UPS Waltco
 Client Pace Other: _____

Tracking #: _____

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

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used SR - 160 Type of Ice: Wet Blue Dry None Meltwater Only

Cooler Temperature Uncorr: 2.0 / Corr: 2.0

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
 Date: 5/24/24 / Initials: EA
 Labeled By Initials: SG

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Pg # EA 5/24/24</u>
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>	
Trip Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir
 Page 2 of 2