



Advanced Environmental Concepts, Inc.

1751-1 Pulaski Hwy Havre De Grace, MD 21078 (410) 939-5550

Title:

Q1 2024 Sampling Report

Project Site:

Charlie's Service Center
11024 Liberty Rd
Randallstown, MD 21133

MDE Case # 95-1777-BA

Prepared for:

Mr. Chris Brocato
11024 Liberty Rd
Randallstown, MD 21133

April 8, 2024

SIGNATURE SHEET

Prepared by:

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1.0 INTRODUCTION

1.1 Purpose

This Q1 2024 Sampling Report is meant to satisfy the requirements set forth by the Maryland Department of the Environment (MDE). All sampling activities were conducted at the Charlie's Service Station located at 11024 Liberty Road Randallstown; Maryland 21133 referred to herein as the "site".

1.2 Scope of Services

This report prepared by Advanced Environmental Concepts, Inc. (AEC) is providing documentation of the scope of service which consisted of

- The sampling of the site's MW network and POET system
- The sampling of the POET system servicing 4507 Wards Chapel Rd.

1.3 Chronology of significant events:

- 4/8/2022
MW-3 was replaced with MW-3R due to MW-3's insufficient depth
- 4/19/2022
AEC, Inc. sampled the supply wells servicing
 - 4507 Wards Chapel Rd.
 - 11024 Liberty Rd (Charlies Service Station)
 - 1102 Liberty Rd
 - And the MW network at 11024 Liberty Rd.
 - MW-3 was abandoned
- 5/2/2022
AEC, Inc. identified concentrations of volatile organic compounds by EPA Method 524.2 of a magnitude that required dilution for proper quantification in samples collected from domestic supply wells (DSWs) servicing 11024 Liberty Rd. and 4507 Wards Chapel Rd. Randallstown, MD on 4/19/2022.

AEC, Inc. notified Andrew Miller (MDE OCP Section Chief) of the elevated concentrations and plans to reanalyze the samples with sufficient dilution in order to properly quantify detected concentrations of volatile organic compounds by EPA Method 524.2.

Concentrations of the Compound MTBE were detected at 5,120ug/l, a concentration that significantly exceeds the MDE GNCS of 20ug/l, was detected in the DSW servicing 4507 Wards Chapel Rd.

Concentrations of the Compound MTBE were detected at 1,070ug/l, a concentration that significantly exceeds the MDE GNCS of 20ug/l, was detected in the DSW servicing 11024 Liberty Rd.

- 5/4/2022
Sampling was performed on the newly installed supply well servicing 11024 Liberty Rd.
- 5/9/2022
Supply well servicing 11023 Liberty Rd (Wards Chapel Preschool) was sampled.

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- 5/10/2022
Confirmation sampling of the well servicing 4507 Wards Chapel Rd. was performed.
- 6/22/2022
AEC sampled the newly Installed POET system servicing 11024 Liberty Rd.
- 6/24/2022
Supply well servicing 11023 Liberty Rd (Wards Chapel Preschool) was sampled.
- 7/14/2022
The newly Installed POET system servicing 4507 Wards Chapel Rd was sampled.

2.0 DOMESTIC SUPPLY WELL SAMPLING ACTIVITIES

On 03/18/2024, AEC personnel arrived on site to complete the scope of work, which included the sampling of the POET Systems servicing 11024 Liberty Rd. (Charlies Service Station) and 4507 Wards Chapel Rd.

The following table summarizes the sampling event history for 11024 and 11023 Liberty Rd. and 4507 Wards Chapel Rd.

2022

Address	6/2022	7/2022	8/2022	9/2022	10/2022	11/2022	12/2022
11024 Liberty Rd	6/16		8/15	9/15	10/20	11/22	12/20
11023 Liberty Rd	6/24	7/14	8/15	9/15	10/20		
4507 Wards Chapel Rd			8/15	9/20	required samples	not	collected

2023

Address	3/2023	6/2023	7/2023	9/2023	12/2023
11024 Liberty Rd	3/22	6/13	NS	9/6/2023	12/22/2023
4507 Wards Chapel Rd	3/22	NS	7/10	9/6/2023	03/18/2024

2024

Address	3/2024
11024 Liberty Rd	3/18
4507 Wards Chapel Rd	3/18

A Site Area Map is provided in Appendix A which depicts the location of all properties for which DSW samples were collected.

3.0 MONITORING WELL SAMPLING ACTIVITIES

On 03/18/2024, AEC personnel arrived on site to complete the scope of work, which included the gauging and sampling of three (3) site MWs.

Depth to groundwater was recorded and top of casing elevation data was collected for each MW. After

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gauging, the MWs were purged a total of three (3) well volumes with the use of an electric submersible pump with disposable vinyl tubing. Purged groundwater was treated with activated carbon before being discharged to the ground. A representative groundwater sample was then collected with a disposable polyethylene bailer. No samples were collected from the tank field MPs due to each of them being dry. The MW locations are represented in Appendix A.

The groundwater samples collected from MW-1 MW-2 and MW-3R were delivered to the laboratory on ice with a chain of custody record. All MW samples collected on-site were analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260 and total petroleum hydrocarbons–diesel range organics and gasoline range organics (TPH-DRO/GRO) by EPA method 8015B.

4.0 EVALUATION AND PRESENTATION OF RESULTS

4.1 Monitoring Well Sampling Results

Detectable concentrations of dissolved phase petroleum hydrocarbons were observed in the groundwater samples collected from

MW-3R

Date	TAA	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	TPH-GRO
03/18/2024	<25	5,600	22,800	27,200	170,800	27,600	573,700

A Quick Reference Analytical table can be found in Appendix B. A full Report of Analysis and Chain of Custody can be found in Appendix C.

4.2 Domestic Supply Well Sampling Results

Detectable concentrations of dissolved phase petroleum hydrocarbons were observed in the groundwater samples collected from the influent of the POET systems.

11024 Liberty Rd.

Date	MTBE	TAA	TBA	DIPE	TAME
10/20/22	9.42	<10	<10	.90	<.5
11/22/22	800	<10	8.82	6.34	6.31
12/20/22	580	<10	<10	4.87	1.78
03/22/23	41.8	<10	<10	<.5	<.5
06/13/23	890	16	438	9.9	14.3
09/06/23	624	<10	73.3	4.42	5.4
12/22/2023	345	<10	44.9	2.05	2.3
03/18/2024	442	<10	<10	3.44	3.87

4507 Wards Chapel Rd.

Date	MTBE	TAA	TBA	DIPE	TAME
4/19/2022	5120	20.3	880	18.8	32.7
5/10/2022	970	73	<5	7.6	17.5
6/16/2022	1868	<10	201	9.16	14
7/14/2022	1298	<10	238	8.35	12.1
8/15/2022	709	<10	44.8	7.32	8.95
9/20/2022	670	<10	71.2	8.35	11.7
10/2022-12/2022	Samples not collected	Access Denied			
3/22/2023	1288	18.5	526	12.2	21.7
7/10/2023	386	<10	<10	4.03	<10
9/6/2023	766	<10	<10	8.69	10.5
12/22/2023	783	<10	<10	8.29	12.4
03/18/2024	375	<10	<10	3.34	0.55

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11024 Liberty Rd.

The concentrations of dissolved phase petroleum hydrocarbons observed in the groundwater samples collected from the effluent of the POET systems sampled on 3/18/2024 are summarized below.

Date	MTBE	TAA	TBA	DIPE	TAME
10/20/22	<.5	<10	<10	<.5	<.5
11/22/22	<.5	<10	<10	<.5	<.5
12/20/22	<.5	<10	<10	<.5	<.5
03/22/23	40.4	<10	70.4	<.5	<.5
06/13/23	1.59	<10	<10	<.5	<.5
9/6/2023	<.5	<10	<10	<.5	<.5
12/22/23	<.5	<10	<10	<.5	<.5
03/18/24	1.46	<10	<10	<.5	<.5

4507 Wards Chapel Rd.

Detectable concentrations of dissolved phase petroleum hydrocarbons were not observed in the groundwater samples collected from the effluent of the POET systems sampled on 03/18/2024.

Date	MTBE	TAA	TBA	DIPE	TAME
7/14/2022	<.5	<10	<10	<.5	<.5
8/15/2022	<.5	<10	<10	<.5	<.5
3/22/2023	<.5	<10	370	<.5	<.5
7/10/2023	.65	<10	<10	<.5	<.5
9/6/2023	<.5	<10	102	<.5	<.5
12/13/23	<.5	<10	32.5	<.5	<.5
03/18/24	<.5	<10	<10	<.5	<.5

A full Report of Analysis and Chain of Custody Records for samples analyzed by AEC, Inc. Laboratories can be found in Appendix C.

5.0 FUTURE ACTIVITIES

For all future site work, AEC, Inc is to receive approval from Mr. Brocato prior to the completion of all MDE requirements.

6.0 APPENDICES

Appendix A

Figures and Drawings

Appendix B

Tables

Charlie's Service Station
Monitoring Well Sampling Summary Table

Sample	Date	DTGW	Groundwater Elevation	TBA	MTBE	DIPE	TAME	TAA	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	TPH-GRO
MDE GNCS for Type I & II Aquifers				NG	20	NG	NG	NG	5	1000	700	10000	0.65	47
MW-3	5/31/2007	24.87	562.34	ND	ND	ND	ND	ND	238	350	771	5186	204	11650
TOC	6/15/2017	24.93	562.28											
	3/21/2008	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/26/2008	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/2009	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/26/2010	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2011	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/30/2012	24.66	562.55	ND	ND	ND	ND	62	336	154	543	1372	186	NS
	6/14/2012	25.31	561.9	191	453	ND	ND	ND	71	33	239	520	50	3100
	9/21/2012	26.55	560.66	19	21	ND	ND	ND	46	33	117	286	29	2628
	12/21/2012	27.07	560.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3/14/2014	27.50	559.71	ND	ND	ND	ND	ND	145	82	237	487	144	NA
	3/12/2015	25.15	562.06	ND	ND	ND	ND	ND	182	45	534	752	309	4550
	11/6/2017	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/14/2018	Dry	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Abandoned													
MW-3R	4/19/2022	27.70	558.96	<25	<1	<1	<1	1,520	42,800	146,800	126,800	380,000	90,400	1,905,000
TOC	5/10/2022	28.03	558.63	<2500	<500	<500	<500	<2500	2,300	7,200	2,400	11,700	1,100	NA
586.66	6/24/2022	27.41	559.25	<25	<1	<1	<1	<25	4,120	21,120	21,360	103,600	9,200	354,700
	9/15/2022	28.30	558.36	<25	<1	<1	<1	<25	22,480	92,400	106,000	248,000	65,600	1,226,000
	12/20/2022	29.50	557.16	<25	<1	<1	<1	680	15,600	104,400	104,000	444,000	49,920	1,555,800
	3/22/2023	28.74	557.92	<25	<1	<1	<1	<25	21,290	71,600	52,000	202,000	22,800	755,200
	6/13/2023	28.58	558.08	<25	<1	<1	<1	<25	17,720	31,200	14,400	70,400	5,600	237,500
	9/6/2023	29.14	557.52	<25	<1	<1	<1	1360	21,600	64,400	35,600	165,600	13,200	578,500
	12/13/2023	29.91	556.75	<25	<1	<1	<1	<25	25,600	45,600	16,080	78,450	3,880	261,700
	3/18/2024	28.10	558.56	<25	<1	<1	<1	<25	5,600	22,800	27,200	170,800	27,600	573,700

*Concentrations in ug/L

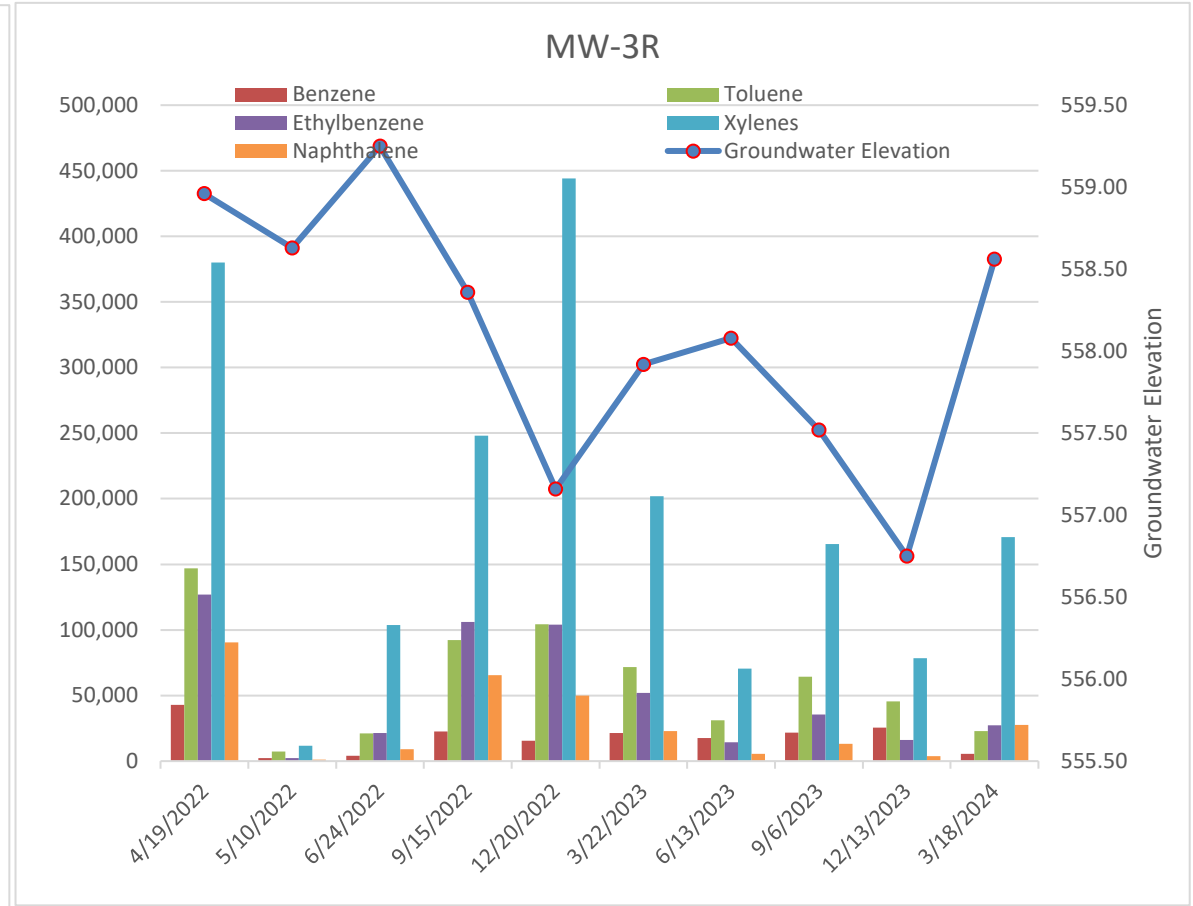
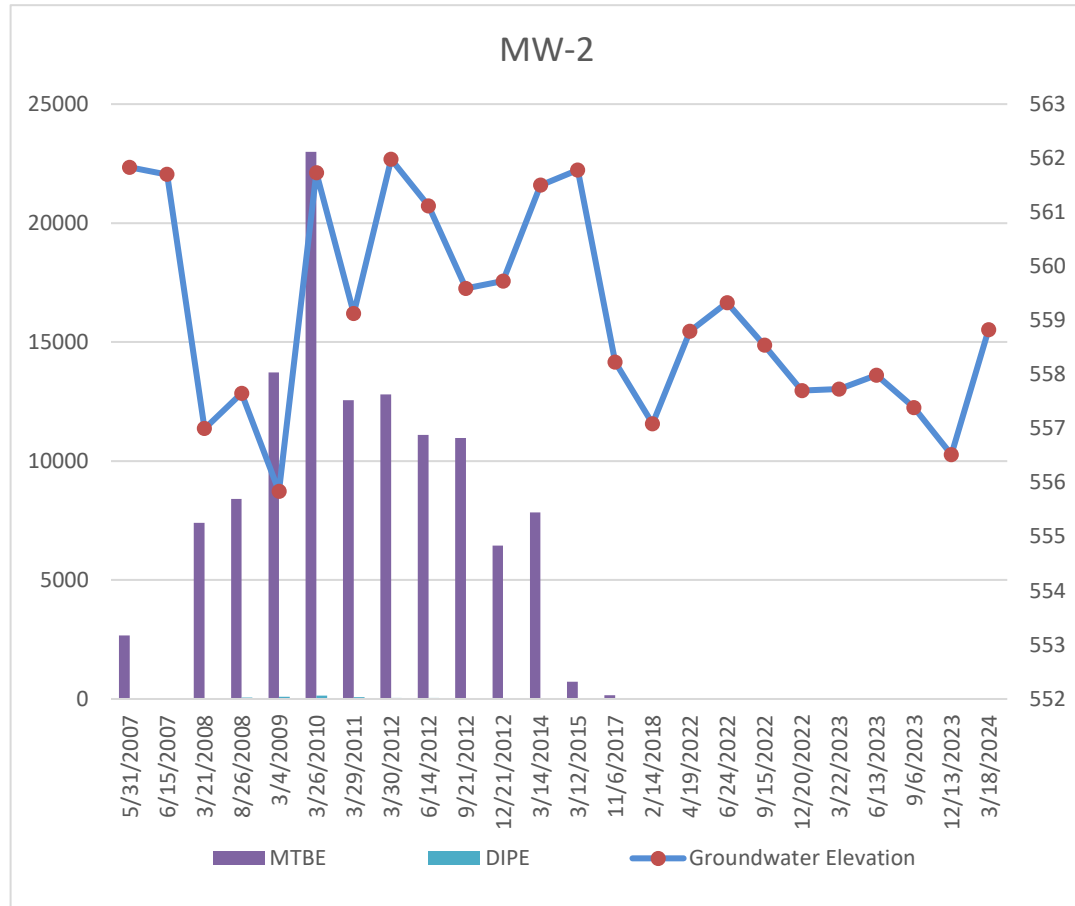
*ND - Denotes concentrations below method detectable levels

*NS - Denotes no sample taken

Values exceeding the specified MDE criteria are **bolded**.

Charlie's Service Station
Monitoring Well Sampling Summary Table

Sample	Date	DTGW	Groundwater Elevation	TBA	MTBE	DIPE	TAME	TAA	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	TPH-GRO
MDE GNCS for Type I & II Aquifers				NG	20	NG	NG	NG	5	1000	700	10000	0.65	47



Charlie's Service Station
Domestic Supply Well Analytical Summary Table

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TAA	TBA	DIPE	TAME
MDE GNCS for Type I & II Aquifers		5	1000	700	10000	20	NG	NG	NG	NG
11024 Liberty Rd.	4/19/2022	<.5	<.5	<.5	<.5	1,070	<10	201	16.5	20.5
New Supply Well Installed	5/4/2022	<.5	<.5	<.5	<.5	3.81	<10	<10	2.61	<.5
1/20/2022	6/16/2022	<.5	1.6	<.5	<.5	7.5	<5	<5	2.5	<.5
	6/16/2022	<.5	1.43	<.5	<.5	5.21	<10	<10	2.07	<.5
	7/14/2022	<.5	<.5	<.5	<.5	243	<10	10.4	4.95	<.5
	8/15/2022	<.5	<.5	<.5	<.5	562	<10	88.1	7.46	<.5
	9/15/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	1.17	<.5
	10/20/2022	<.5	<.5	<.5	<.5	9.42	<10	<10	0.9	<.5
	11/22/2022	<.5	<.5	<.5	<.5	800	<10	8.82	6.34	6.31
	12/20/2022	<.5	<.5	<.5	<.5	580	<10	<10	4.87	1.78
	3/22/2023	<.5	<.5	<.5	<.5	41.8	<10	<10	<.5	<.5
	6/13/2023	<.5	<.5	<.5	<.5	890	16.0	438	9.9	14.3
	9/6/2023	<.5	<.5	<.5	<.5	624	<10	73.3	4.42	5.4
	12/22/2023	<.5	<.5	<.5	<.5	345	<10	44.9	2.05	2.3
	3/18/2024	<.5	<.5	<.5	<.5	442	<10	<10	3.44	3.87
	11024 Liberty Rd. Int 1	7/14/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5
8/15/2022		<.5	<.5	<.5	<.5	0.9	<10	<10	<.5	<.5
6/13/2023		<.5	<.5	<.5	<.5	1.9	<10	<10	<.5	<.5
9/6/2023		<.5	<.5	<.5	<.5	21.3	<10	<10	<.5	<.5
11024 Liberty Rd. Int 2	9/15/2022	<.5	<.5	<.5	<.5	<.5	13.9	<10	<.5	<.5
	10/20/2022	<.5	<.5	<.5	<.5	<.5	<.5	<10	<.5	<.5
	11/22/2022	<.5	<.5	<.5	<.5	<.5	13.3	<10	<.5	<.5
	12/20/2022	<.5	<.5	<.5	<.5	<.5	<.5	<10	<.5	<.5
	3/22/2023	<.5	<.5	<.5	<.5	11.3	<.5	32.3	<.5	<.5
	12/22/2023	<.5	<.5	<.5	<.5	3.13	<.5	11.4	<.5	<.5
	3/18/2024	<.5	<.5	<.5	<.5	<.5	<.5	<10	<.5	<.5

Charlie's Service Station
Domestic Supply Well Analytical Summary Table

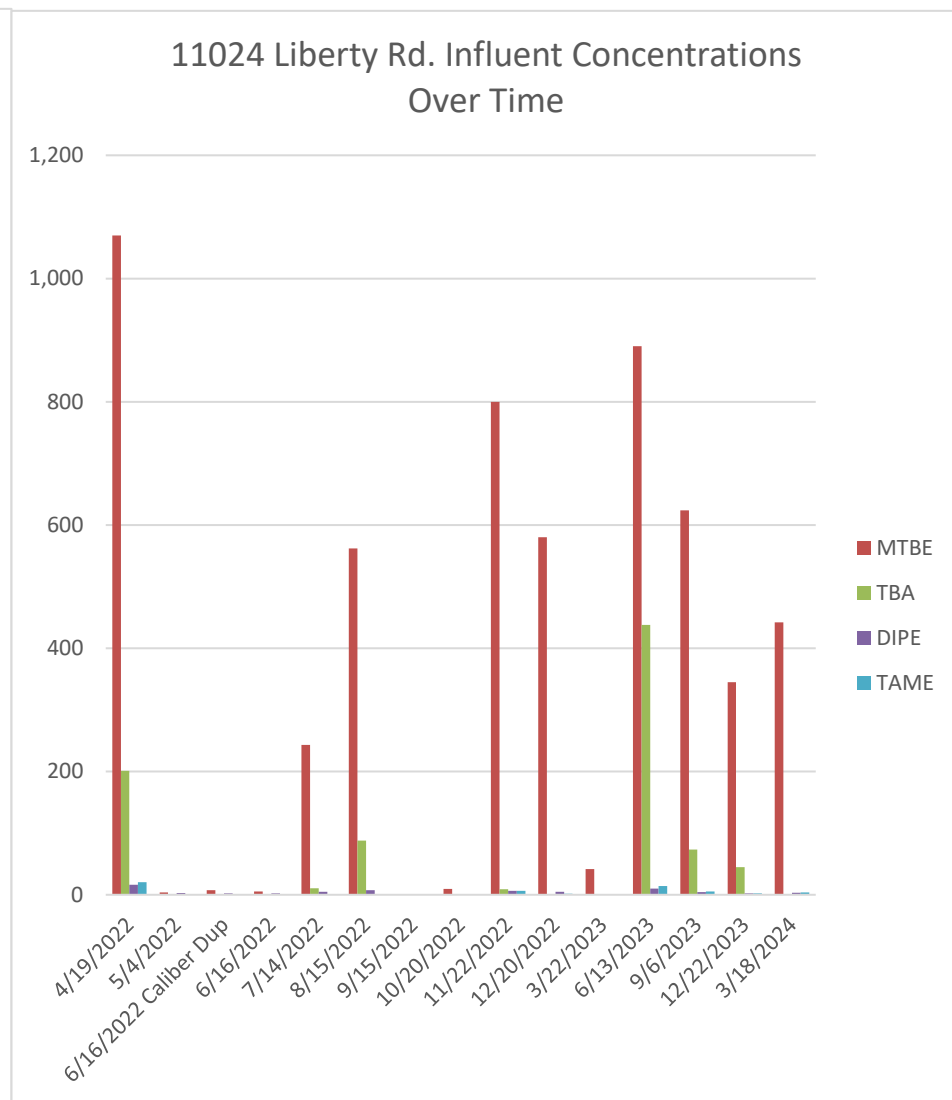
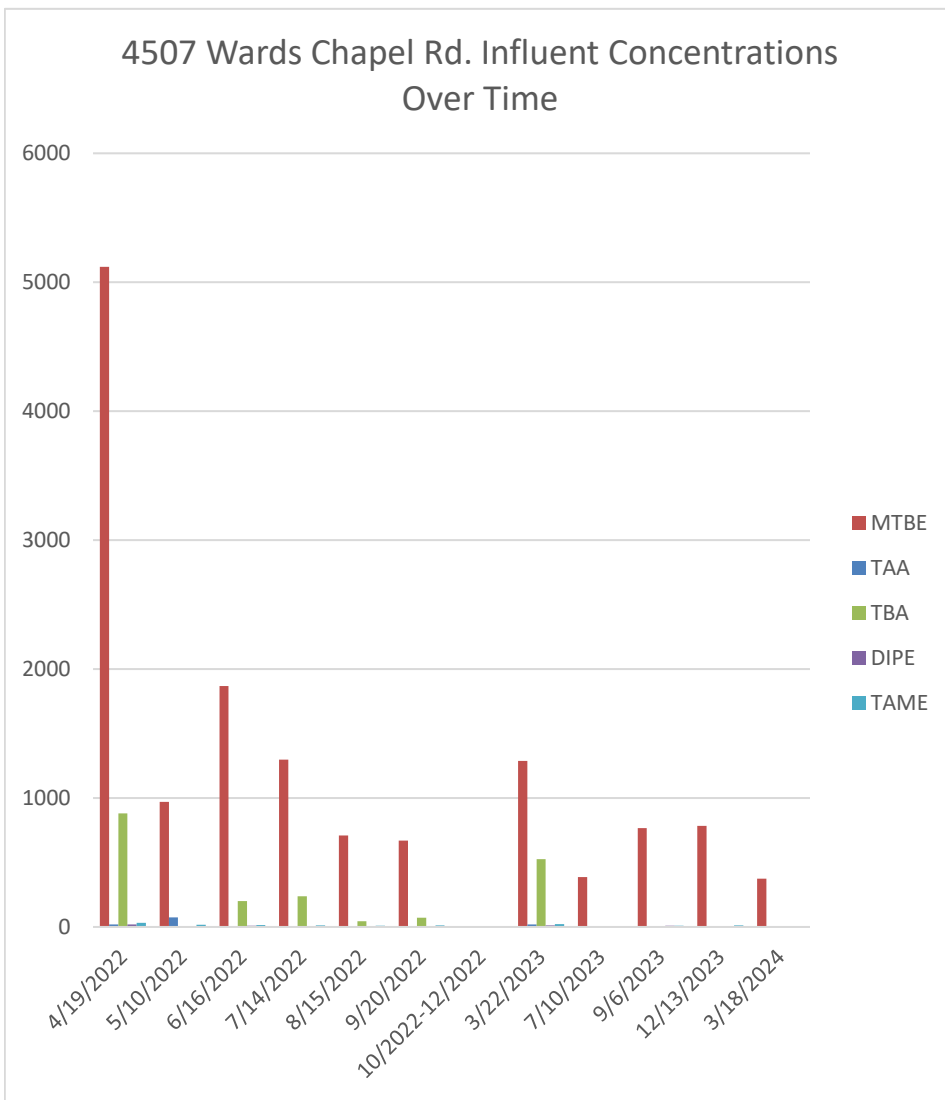
Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TAA	TBA	DIPE	TAME
MDE GNCS for Type I & II Aquifers		5	1000	700	10000	20	NG	NG	NG	NG
11024 Liberty Rd Eff	7/14/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	8/15/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	9/15/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	10/20/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	11/22/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	12/20/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	3/22/2023	<.5	<.5	<.5	<.5	40.4	<10	70.4	<.5	<.5
	6/13/2023	<.5	<.5	<.5	<.5	1.59	<10	<10	<.5	<.5
	9/6/2023	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	12/22/2023	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	3/18/2024	<.5	<.5	<.5	<.5	1.46	<10	<10	<.5	<.5
11023 Liberty Road	11/6/2017	ND	ND	ND	ND	ND	ND	ND		
	2/14/2018	ND	ND	ND	ND	ND	ND	ND		
	5/9/2022	<.5	<.5	<.5	<.5	<.5	<5	<5	<.5	<.5
	6/24/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	7/14/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	8/15/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
	9/15/2022	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
11100 Liberty Road	11/6/2017	ND	ND	ND	ND	ND	ND	ND		
	2/14/2018	ND	ND	ND	ND	ND	ND	ND		
11012 Liberty Road	4/19/2022	<.5	<.5	<.5	<.5	<.5	<5	<5	<.5	<.5

Charlie's Service Station
Domestic Supply Well Analytical Summary Table

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TAA	TBA	DIPE	TAME
MDE GNCS for Type I & II Aquifers		5	1000	700	10000	20	NG	NG	NG	NG
4507 Ward's Chapel	4/19/2022	<.5	<.5	<.5	<.5	5120	20.3	880	18.8	32.7
	5/10/2022	<.5	<.5	<.5	<.5	970	73	<5	7.6	17.5
	6/16/2022	<.5	<.5	<.5	<.5	1868	<10	201	9.16	14
	7/14/2022	<.5	<.5	<.5	<.5	1298	<10	238	8.35	12.1
	8/15/2022	<.5	<.5	<.5	<.5	709	<10	44.8	7.32	8.95
	9/20/2022	<.5	<.5	<.5	<.5	670	<10	71.2	8.35	11.7
	10/2022-12/2022	Samples not collected	Access Denied							
	3/22/2023	<.5	<.5	<.5	<.5	1288	18.5	526	12.2	21.7
	7/10/2023	<.5	<.5	<.5	<.5	386	<10	<10	4.03	<10
	9/6/2023	<.5	<.5	<.5	<.5	766	<10	<10	8.69	10.5
12/13/2023	<.5	<.5	<.5	<.5	783	<10	<10	8.29	12.4	
3/18/2024	<.5	<.5	<.5	<.5	375	<10	<10	3.34	0.55	
4507 Ward's Chapel Int 1										
7/14/2022	<.5	<.5	<.5	<.5	<.5	1.63	<10	11.6	<.5	<.5
8/15/2022	<.5	<.5	<.5	<.5	<.5	5.69	<10	36.3	<.5	<.5
7/10/2023	<.5	<.5	<.5	<.5	<.5	<.5	<10	<.5	<.5	<.5
9/6/2023	<.5	<.5	<.5	<.5	<.5	3.11	<10	14.3	<.5	<.5
4507 Ward's Chapel Int 2										
9/20/2022	<.5	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
3/22/2023	<.5	<.5	<.5	<.5	<.5	0.55	<10	397	<.5	<.5
12/13/2023	<.5	<.5	<.5	<.5	<.5	3.16	<10	36.9	<.5	<.5
3/18/2024	<.5	<.5	<.5	<.5	<.5	2.99	<10	<10	<.5	<.5
4507 Ward's Chapel EFF										
7/14/2022	<.5	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
8/15/2022	<.5	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5
3/22/2023	<.5	<.5	<.5	<.5	<.5	<.5	<10	370	<.5	<.5
7/10/2023	<.5	<.5	<.5	<.5	<.5	0.65	<10	<10	<.5	<.5
9/6/2023	<.5	<.5	<.5	<.5	<.5	<.5	<10	102	<.5	<.5
12/13/2023	<.5	<.5	<.5	<.5	<.5	<.5	<10	32.5	<.5	<.5
3/18/2024	<.5	<.5	<.5	<.5	<.5	<.5	<10	<10	<.5	<.5

Charlie's Service Station
Domestic Supply Well Analytical Summary Table

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TAA	TBA	DIPE	TAME
MDE GNCS for Type I & II Aquifers		5	1000	700	10000	20	NG	NG	NG	NG



Appendix C

Report of Analysis and Chain of Custody

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS INF	Project Identification:	Charlies Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A020

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	375	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	3.34	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	0.55	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS INF	Project Identification:	Charlies Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A020

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	109	EPA 524.2
Dibromofluoromethane	%	98	EPA 524.2
Toluene-d8	%	118	EPA 524.2
Bromofluorobenzene	%	88	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS INTER B	Project Identification:	Charlies Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A019

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	2.99	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS INTER B	Project Identification:	Charlies Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A019

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	115	EPA 524.2
Dibromofluoromethane	%	99	EPA 524.2
Toluene-d8	%	116	EPA 524.2
Bromofluorobenzene	%	87	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS EFF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A018

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	4507 WARDS EFF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A018

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	111	EPA 524.2
Dibromofluoromethane	%	100	EPA 524.2
Toluene-d8	%	117	EPA 524.2
Bromofluorobenzene	%	87	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty INF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A014

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	442	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	3.44	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	3.87	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty INF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A014

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	103	EPA 524.2
Dibromofluoromethane	%	95	EPA 524.2
Toluene-d8	%	115	EPA 524.2
Bromofluorobenzene	%	86	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty Inter B	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A016

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty Inter B	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A016

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	108	EPA 524.2
Dibromofluoromethane	%	99	EPA 524.2
Toluene-d8	%	117	EPA 524.2
Bromofluorobenzene	%	86	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty EFF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A017

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	1.46	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	11024 Liberty EFF	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A017

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	111	EPA 524.2
Dibromofluoromethane	%	99	EPA 524.2
Toluene-d8	%	117	EPA 524.2
Bromofluorobenzene	%	86	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-1	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A027

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	1	ug/L	ND	EPA 8260
Chloromethane	1	ug/L	ND	EPA 8260
Vinyl Chloride	1	ug/L	ND	EPA 8260
Bromomethane	1	ug/L	ND	EPA 8260
Chloroethane	1	ug/L	ND	EPA 8260
Trichlorofluoromethane	1	ug/L	ND	EPA 8260
1,1-Dichloroethene	1	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	25	ug/L	ND	EPA 8260
Methylene Chloride	1	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	1	ug/L	ND	EPA 8260
1,1-Dichloroethane	1	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	1	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Bromochloromethane	1	ug/L	ND	EPA 8260
Chloroform	1	ug/L	ND	EPA 8260
2,2-Dichloropropane	1	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	1	ug/L	ND	EPA 8260
1,2-Dichloroethane	1	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	25	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	1	ug/L	ND	EPA 8260
1,1-Dichloropropene	1	ug/L	ND	EPA 8260
Carbon tetrachloride	1	ug/L	ND	EPA 8260
Benzene	1	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	1	ug/L	ND	EPA 8260
Dibromomethane	1	ug/L	ND	EPA 8260
1,2-Dichloropropane	1	ug/L	ND	EPA 8260
Trichloroethene	1	ug/L	ND	EPA 8260
Bromodichloromethane	1	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	1	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	1	ug/L	ND	EPA 8260
Toluene	1	ug/L	ND	EPA 8260
1,3-Dichloropropane	1	ug/L	ND	EPA 8260
Dibromochloromethane	1	ug/L	ND	EPA 8260
1,2-Dibromoethane	1	ug/L	ND	EPA 8260
Tetrachloroethene	1	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	1	ug/L	ND	EPA 8260
Chlorobenzene	1	ug/L	ND	EPA 8260
Ethylbenzene	1	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-1	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A027

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	2	ug/L	ND	EPA 8260
Bromoform	1	ug/L	ND	EPA 8260
Styrene	1	ug/L	ND	EPA 8260
o-Xylene	1	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	1	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	1	ug/L	ND	EPA 8260
Isopropylbenzene	1	ug/L	ND	EPA 8260
Bromobenzene	1	ug/L	ND	EPA 8260
n-Propylbenzene	1	ug/L	ND	EPA 8260
2-Chlorotoluene	1	ug/L	ND	EPA 8260
4-Chlorotoluene	1	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	1	ug/L	ND	EPA 8260
tert-Butylbenzene	1	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	1	ug/L	ND	EPA 8260
sec-Butylbenzene	1	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	1	ug/L	ND	EPA 8260
p-iso-Propyltoluene	1	ug/L	ND	EPA 8260
n-Butylbenzene	1	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	1	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	1	ug/L	ND	EPA 8260
Naphthalene	1	ug/L	ND	EPA 8260
Hexachlorobutadiene	1	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	1	ug/L	ND	EPA 8260
TPH GRO	40	ug/L	ND	EPA 8015B
TPH DRO	40	ug/L	ND	EPA 8015B

SURROGATE SPIKE

1,2-Dichloroethane-d4		%	112	EPA 8260
Dibromofluoromethane		%	99	EPA 8260
TFT		%	90	EPA 8015B
Toluene-d8		%	117	EPA 8260
Bromofluorobenzene		%	88	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-2	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A028

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	1	ug/L	ND	EPA 8260
Chloromethane	1	ug/L	ND	EPA 8260
Vinyl Chloride	1	ug/L	ND	EPA 8260
Bromomethane	1	ug/L	ND	EPA 8260
Chloroethane	1	ug/L	ND	EPA 8260
Trichlorofluoromethane	1	ug/L	ND	EPA 8260
1,1-Dichloroethene	1	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	25	ug/L	ND	EPA 8260
Methylene Chloride	1	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	1	ug/L	ND	EPA 8260
1,1-Dichloroethane	1	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	1	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Bromochloromethane	1	ug/L	ND	EPA 8260
Chloroform	1	ug/L	ND	EPA 8260
2,2-Dichloropropane	1	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	1	ug/L	ND	EPA 8260
1,2-Dichloroethane	1	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	25	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	1	ug/L	ND	EPA 8260
1,1-Dichloropropene	1	ug/L	ND	EPA 8260
Carbon tetrachloride	1	ug/L	ND	EPA 8260
Benzene	1	ug/L	ND	EPA 8260
tert-Amyl Methyl Ether (TAME)	1	ug/L	ND	EPA 8260
Dibromomethane	1	ug/L	ND	EPA 8260
1,2-Dichloropropane	1	ug/L	ND	EPA 8260
Trichloroethene	1	ug/L	ND	EPA 8260
Bromodichloromethane	1	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	1	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	1	ug/L	ND	EPA 8260
Toluene	1	ug/L	ND	EPA 8260
1,3-Dichloropropane	1	ug/L	ND	EPA 8260
Dibromochloromethane	1	ug/L	ND	EPA 8260
1,2-Dibromoethane	1	ug/L	ND	EPA 8260
Tetrachloroethene	1	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	1	ug/L	ND	EPA 8260
Chlorobenzene	1	ug/L	ND	EPA 8260
Ethylbenzene	1	ug/L	ND	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-2	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A028

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	2	ug/L	ND	EPA 8260
Bromoform	1	ug/L	ND	EPA 8260
Styrene	1	ug/L	ND	EPA 8260
o-Xylene	1	ug/L	ND	EPA 8260
1,1,2,2-Tetrachloroethane	1	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	1	ug/L	ND	EPA 8260
Isopropylbenzene	1	ug/L	ND	EPA 8260
Bromobenzene	1	ug/L	ND	EPA 8260
n-Propylbenzene	1	ug/L	ND	EPA 8260
2-Chlorotoluene	1	ug/L	ND	EPA 8260
4-Chlorotoluene	1	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	1	ug/L	ND	EPA 8260
tert-Butylbenzene	1	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	1	ug/L	ND	EPA 8260
sec-Butylbenzene	1	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	1	ug/L	ND	EPA 8260
p-iso-Propyltoluene	1	ug/L	ND	EPA 8260
n-Butylbenzene	1	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	1	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	1	ug/L	ND	EPA 8260
Naphthalene	1	ug/L	ND	EPA 8260
Hexachlorobutadiene	1	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	1	ug/L	ND	EPA 8260
TPH GRO	40	ug/L	ND	EPA 8015B
TPH DRO	40	ug/L	ND	EPA 8015B

SURROGATE SPIKE

1,2-Dichloroethane-d4		%	111	EPA 8260
Dibromofluoromethane		%	97	EPA 8260
TFT		%	90	EPA 8015B
Toluene-d8		%	118	EPA 8260
Bromofluorobenzene		%	88	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-3R	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A029

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	1	ug/L	ND	EPA 8260
Chloromethane	1	ug/L	ND	EPA 8260
Vinyl Chloride	1	ug/L	ND	EPA 8260
Bromomethane	1	ug/L	ND	EPA 8260
Chloroethane	1	ug/L	ND	EPA 8260
Trichlorofluoromethane	1	ug/L	ND	EPA 8260
1,1-Dichloroethene	1	ug/L	ND	EPA 8260
tert-Butyl Alcohol (TBA)	25	ug/L	ND	EPA 8260
Methylene Chloride	1	ug/L	ND	EPA 8260
trans-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Methyl tert-Butyl Ether (MtBE)	1	ug/L	ND	EPA 8260
1,1-Dichloroethane	1	ug/L	ND	EPA 8260
Diisopropyl Ether (DIPE)	1	ug/L	ND	EPA 8260
cis-1,2-Dichloroethene	1	ug/L	ND	EPA 8260
Bromochloromethane	1	ug/L	ND	EPA 8260
Chloroform	1	ug/L	ND	EPA 8260
2,2-Dichloropropane	1	ug/L	ND	EPA 8260
Ethyl tert-Butyl Ether (EtBE)	1	ug/L	ND	EPA 8260
1,2-Dichloroethane	1	ug/L	ND	EPA 8260
tert-Amyl Alcohol (TAA)	25	ug/L	ND	EPA 8260
1,1,1-Trichloroethane	1	ug/L	ND	EPA 8260
1,1-Dichloropropene	1	ug/L	ND	EPA 8260
Carbon tetrachloride	1	ug/L	ND	EPA 8260
Benzene	1	ug/L	5600	EPA 8260
tert-Amyl Methyl Ether (TAME)	1	ug/L	ND	EPA 8260
Dibromomethane	1	ug/L	ND	EPA 8260
1,2-Dichloropropane	1	ug/L	ND	EPA 8260
Trichloroethene	1	ug/L	ND	EPA 8260
Bromodichloromethane	1	ug/L	ND	EPA 8260
tert-Amyl Ethyl Ether (TAEE)	1	ug/L	ND	EPA 8260
cis-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
trans-1,3-Dichloropropene	1	ug/L	ND	EPA 8260
1,1,2-Trichloroethane	1	ug/L	ND	EPA 8260
Toluene	1	ug/L	22800	EPA 8260
1,3-Dichloropropane	1	ug/L	ND	EPA 8260
Dibromochloromethane	1	ug/L	ND	EPA 8260
1,2-Dibromoethane	1	ug/L	ND	EPA 8260
Tetrachloroethene	1	ug/L	ND	EPA 8260
1,1,1,2-Tetrachloroethene	1	ug/L	ND	EPA 8260
Chlorobenzene	1	ug/L	ND	EPA 8260
Ethylbenzene	1	ug/L	27200	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	MW-3R	Project Identification:	Charles Service Center
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	3/19/2024	Analyst:	MM
Analysis Date:	3/21/2024	Lab File:	32124A029

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	2	ug/L	118400	EPA 8260
Bromoform	1	ug/L	ND	EPA 8260
Styrene	1	ug/L	ND	EPA 8260
o-Xylene	1	ug/L	52400	EPA 8260
1,1,2,2-Tetrachloroethane	1	ug/L	ND	EPA 8260
1,2,3-Trichloropropane	1	ug/L	ND	EPA 8260
Isopropylbenzene	1	ug/L	3820	EPA 8260
Bromobenzene	1	ug/L	ND	EPA 8260
n-Propylbenzene	1	ug/L	9600	EPA 8260
2-Chlorotoluene	1	ug/L	ND	EPA 8260
4-Chlorotoluene	1	ug/L	ND	EPA 8260
1,3,5-Trimethylbenzene	1	ug/L	34100	EPA 8260
tert-Butylbenzene	1	ug/L	ND	EPA 8260
1,2,4-Trimethylbenzene	1	ug/L	116000	EPA 8260
sec-Butylbenzene	1	ug/L	ND	EPA 8260
1,3-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,4-Dichlorobenzene	1	ug/L	ND	EPA 8260
1,2-Dichlorobenzene	1	ug/L	ND	EPA 8260
p-iso-Propyltoluene	1	ug/L	1600	EPA 8260
n-Butylbenzene	1	ug/L	ND	EPA 8260
1,2-Dibromo-3-chloropropane	1	ug/L	ND	EPA 8260
1,2,4-Trichlorobenzene	1	ug/L	ND	EPA 8260
Naphthalene	1	ug/L	27600	EPA 8260
Hexachlorobutadiene	1	ug/L	ND	EPA 8260
1,2,3-Trichlorobenzene	1	ug/L	ND	EPA 8260
TPH GRO	40	ug/L	573700	EPA 8015B
TPH DRO	40	ug/L	ND	EPA 8015B

SURROGATE SPIKE

1,2-Dichloroethane-d4		%	109	EPA 8260
Dibromofluoromethane		%	96	EPA 8260
TFT		%	89	EPA 8015B
Toluene-d8		%	114	EPA 8260
Bromofluorobenzene		%	88	EPA 8260

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	TRIP BLANK	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A013

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
Dichlorodifluoromethane	0.5	ug/L	ND	EPA 524.2
Chloromethane	0.5	ug/L	ND	EPA 524.2
Vinyl Chloride	0.5	ug/L	ND	EPA 524.2
Bromomethane	0.5	ug/L	ND	EPA 524.2
Chloroethane	0.5	ug/L	ND	EPA 524.2
Trichlorofluoromethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethene	0.5	ug/L	ND	EPA 524.2
tert-Butyl Alcohol (TBA)	10	ug/L	ND	EPA 524.2
Methylene Chloride	0.5	ug/L	ND	EPA 524.2
trans-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Methyl tert-Butyl Ether (MtBE)	0.5	ug/L	ND	EPA 524.2
1,1-Dichloroethane	0.5	ug/L	ND	EPA 524.2
Diisopropyl Ether (DIPE)	0.5	ug/L	ND	EPA 524.2
cis-1,2-Dichloroethene	0.5	ug/L	ND	EPA 524.2
Bromochloromethane	0.5	ug/L	ND	EPA 524.2
Chloroform	0.5	ug/L	ND	EPA 524.2
2,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Ethyl tert-Butyl Ether (EtBE)	0.5	ug/L	ND	EPA 524.2
1,2-Dichloroethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Alcohol (TAA)	10	ug/L	ND	EPA 524.2
1,1,1-Trichloroethane	0.5	ug/L	ND	EPA 524.2
1,1-Dichloropropene	0.5	ug/L	ND	EPA 524.2
Carbon tetrachloride	0.5	ug/L	ND	EPA 524.2
Benzene	0.5	ug/L	ND	EPA 524.2
tert-Amyl Methyl Ether (TAME)	0.5	ug/L	ND	EPA 524.2
Dibromomethane	0.5	ug/L	ND	EPA 524.2
1,2-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Trichloroethene	0.5	ug/L	ND	EPA 524.2
Bromodichloromethane	0.5	ug/L	ND	EPA 524.2
tert-Amyl Ethyl Ether (TAEE)	0.5	ug/L	ND	EPA 524.2
cis-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
trans-1,3-Dichloropropene	0.5	ug/L	ND	EPA 524.2
1,1,2-Trichloroethane	0.5	ug/L	ND	EPA 524.2
Toluene	0.5	ug/L	ND	EPA 524.2
1,3-Dichloropropane	0.5	ug/L	ND	EPA 524.2
Dibromochloromethane	0.5	ug/L	ND	EPA 524.2
1,2-Dibromoethane	0.5	ug/L	ND	EPA 524.2
Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,1,1,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
Chlorobenzene	0.5	ug/L	ND	EPA 524.2
Ethylbenzene	0.5	ug/L	ND	EPA 524.2

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

Laboratory Services 1751 Pulaski Highway, Havre de Grace, MD 21078 Phone:410-939-5550 Fax:410-939-5552

Certificate of Analysis

Sample Identification:	TRIP BLANK	Project Identification:	Charles Service Station
MATRIX:	water	Client Identification:	CHRIS BROCATO
Sample Date:	3/18/2024	Client Telephone:	
Date Received:	3/18/2024	Client Fax:	
Extraction Date:	na	Analyst:	MM
Analysis Date:	3/28/2024	Lab File:	32824A013

COMPOUND	DETECTION LIMIT	TEST UNIT	TEST VALUE	METHOD
m&p-Xylene	0.5	ug/L	ND	EPA 524.2
Bromoform	0.5	ug/L	ND	EPA 524.2
Styrene	0.5	ug/L	ND	EPA 524.2
o-Xylene	0.5	ug/L	ND	EPA 524.2
1,1,2,2-Tetrachloroethene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichloropropane	0.5	ug/L	ND	EPA 524.2
Isopropylbenzene	0.5	ug/L	ND	EPA 524.2
Bromobenzene	0.5	ug/L	ND	EPA 524.2
n-Propylbenzene	0.5	ug/L	ND	EPA 524.2
2-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
4-Chlorotoluene	0.5	ug/L	ND	EPA 524.2
1,3,5-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
tert-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2,4-Trimethylbenzene	0.5	ug/L	ND	EPA 524.2
sec-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,3-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,4-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dichlorobenzene	0.5	ug/L	ND	EPA 524.2
p-iso-Propyltoluene	0.5	ug/L	ND	EPA 524.2
n-Butylbenzene	0.5	ug/L	ND	EPA 524.2
1,2-Dibromo-3-chloropropane	0.5	ug/L	ND	EPA 524.2
1,2,4-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2
Naphthalene	0.5	ug/L	ND	EPA 524.2
Hexachlorobutadiene	0.5	ug/L	ND	EPA 524.2
1,2,3-Trichlorobenzene	0.5	ug/L	ND	EPA 524.2

SURROGATE SPIKE

1,2-Dichloroethane-d4	%	106	EPA 524.2
Dibromofluoromethane	%	98	EPA 524.2
Toluene-d8	%	115	EPA 524.2
Bromofluorobenzene	%	87	EPA 524.2

MDE Drinking Water Supply Laboratory Certification #333

ADVANCED ENVIRONMENTAL CONCEPTS, INC.

1751 F. FOLKERS HWY. EIGHTH FLOOR, MD 21078-2207

Phone: 410.939.8880 Fax: 410.939.5557

www.AECENvironment.com

Chain of Custody Record

Client: <u>Chris Baccato</u>		Project Name: <u>Charlie's Service Station</u>				SDG#				
Address:		Project Location: <u>11024 Liberty Rd. Randallstown, MD</u>				Preservatives HCL 1:1				
Contact:		Phone: Fax:				Requested Analysis				
Sample By: <u>GB</u>		Email:				8015 DRO/GRO				
		Receive Completed Report Via (Circle One) U.S. Mail Email Fax				524.2 8260				
Sample #	Sample ID	Date	Time	Matrix	pH					Observation
1	4507 Wards Chapel Eff	3/18/24		Water	6.2	X				no CHLORINE
2	4507 Wards Chapel Int B				6.2	X				
3	4507 Wards Chapel Inf				6.2	X				
4	11024 Liberty Eff				6.2	X				
5	11024 Liberty Rd Int B				6.2	X				
6	11024 Liberty Rd Inf				6.2	X				
7	Trip				6.2	X				
8	MW-1						X	X		
9	MW-2						X	X		
10	MW-3R						X	X		
Relinquished/Received By Signature		Date	Time	Delivery Method		Lab Use Only				
Relinquished By: <u>[Signature]</u>		3/18/24				Temp of Cooler 64°C				
Received By: <u>[Signature]</u>						Ice Present <input checked="" type="checkbox"/> (Y/N)				
Relinquished By: <u>[Signature]</u>		3/18/24				Custody Seal <input checked="" type="checkbox"/> (Y/N)				
Received By:						Date of Extraction <u>3/19/24</u>				
Matrix Codes: SO = Soil, GW = Ground Water, WW = Waste Water, VP = Vapor, SL = Sludge, DW = Drinking Water, O = Other										
Special Instructions / Comments / QC Requirements:						Turn Around Time: <input checked="" type="checkbox"/> STD 1 Day 2 Day 3 Day Other				

no
CHLORINE

400 X