

AGENDA
COUNTY OF AMELIA ECONOMIC DEVELOPMENT AUTHORITY
AMELIA COUNTY ADMINISTRATION BUILDING CONFERENCE ROOM
TUESDAY, FEBRUARY 14, 2023 AT 10:00 AM

REGULAR MEETING

- 1. CALL TO ORDER/DETERMINATION OF QUORUM-CHAIRMAN**
- 2. ROLL CALL**
- 3. INVOCATION AND PLEDGE OF ALLEGIANCE**
- 4. WELCOME**
- 5. COMMUNICATIONS FROM CITIZENS**
- 6. APPROVAL/ACCEPTANCE OF MINUTES AND FINANCIAL REPORTS**
 - A. Approval of Minutes
 - B. Acceptance of Treasurer's Reports
- 7. COUNTY ADMINISTRATOR'S REPORT**
 - A. Letterpress Progress Report
 - B. Website Progress Report
- 8. OLD/NEW BUSINESS**
 - A. Richardson Road Project Discussion
- 9. CLOSED MEETING**
 - A. Discussion concerning a prospective business or industry or the expansion of an existing business or industry where no previous announcement has been made of the business' or industry's interest in locating or expanding its facilities in the community.
- 10. MOTION TO ADJOURN OR CONTINUE MEETING**

MINUTES: AMELIA ECONOMIC DEVELOPMENT AUTHORITY
REGULAR MEETING HELD ON JANUARY 10, 2023, AT 10:00
A.M. AT THE AMELIA COUNTY CONFERENCE ROOM

EDA MEMBERS PRESENT:

ELDON DIEFFENBACH
ROBERT C. SMITH
WINSTON VAUGHN
MAUDIE SCOTT

ALSO

PRESENT: A. TAYLOR HARVIE, County Administrator
ASHLEY GUNN, Administrative Assistant

- The January 10, 2023 EDA meeting was called to order by Eldon Dieffenbach.
- Roll Call was taken by Taylor Harvie.
- Eldon Dieffenbach offered the invocation.
- Everyone participated in the Pledge of Allegiance.

COMMUNICATION FROM CITIZENS

- No citizen was in attendance.

APPROVAL/ACCEPTANCE OF MINUTES AND FINANCIAL REPORTS

- The December 13, 2022 minutes were approved.
- The December reports were accepted.

COUNTY ADMINISTRATOR'S REPORT

Discussed the communication audit.

OLD/NEW BUSINESS

A. Social Media Audit Discussion

- Taylor explained the scope of the Audit report.
- Informed EDA of the upcoming meeting with Letterpress on January 12th.
- Discussed process and deadlines.

B. Industrial Park Report

- Discussed the marketing materials for the industrial park that were provided.
- Discussed providing a more routine route for a deputy to patrol the area.

CLOSED SESSION

-Maudie Scott made the motion to enter into closed session.

The committee entered into closed session pursuant to Code of Virginia §2.2-3711-A-3, Discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body.

After returning to open session, the Committee certified by roll call that only business allowed by the Code of Virginia was discussed. The vote was as follows:

Eldon Dieffenbach	Aye
Robert C. Smith	Aye
Maudie Scott	Aye
Winston Vaughn	Aye

MOTION TO CONTINUE/ADJOURN

There being no further business, the January 10, 2023 EDA meeting was adjourned.

ATTEST

Minutes Approved February 14, 2023

A. Taylor Harvie, County Administrator

Eldon Dieffenbach, Chairman

2023/01

ACCOUNT #	DESCRIPTION	DATE	REFERENCE/PO#	CURRENT AMOUNT		YEAR-TO-DATE	\$ BUDGET \$
				DEBITS	CREDITS		
-----	-----	-----	-----	-----	-----	-----	-----
	** EDA FUND **		FUND#-501				
	ASSETS		MAJOR-000100				
000100-0100	Cash With Treasurer	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07 7/01/2022	YE-001-BEG.BAL.	-	1,065,776.53	.00	
	-TREASURER CASH REPORT	2022/07 7/29/2022	CS-001-20220729	-	1,555.82	.00	
	-TREASURER CASH REPORT	2022/08 8/10/2022	CS-001-20220810	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/08 8/31/2022	CS-001-20220831	-	2,005.09	.00	
	-TREASURER CASH REPORT	2022/09 9/01/2022	CS-001-20220901	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/09 9/29/2022	CS-001-20220929	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/09 9/30/2022	CS-001-20220930	-	2,314.50	.00	
	-TREASURER CASH REPORT	2022/10 10/25/2022	CS-001-20221025	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/10 10/31/2022	CS-001-20221031	-	2,956.60	.00	
	-TREASURER CASH REPORT	2022/11 11/30/2022	CS-001-20221130	-	3,430.14	.00	
	-TREASURER CASH REPORT	2022/12 12/01/2022	CS-001-20221201	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/12 12/30/2022	CS-001-20221230	-	10,552.96	.00	
	-TREASURER CASH REPORT	2022/12 12/30/2022	CS-001-20221230	-	4,064.51	.00	
	-TREASURER CASH REPORT	2023/01 1/27/2023	CS-000-20230127	-	.00	726,537.80-	
	-TREASURER CASH REPORT	2023/01 1/31/2023	CS-000-20230131	-	4,226.27	.00	
	-TOTAL-				1,149,647.22	726,537.80-	
						423,109.42	
						423,109.42 *	423,109.42-
000100-0630	Buildings	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07 7/01/2022	YE-001-BEG.BAL.	-	1,352,463.74	.00	
	-TOTAL-				1,352,463.74	.00	
						1,352,463.74	
					1,352,463.74 *	1,352,463.74 *	1,352,463.74-
000100-0635	Accum Depreciation - Buildings	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07 7/01/2022	YE-001-BEG.BAL.	-	.00	188,664.25-	
	-TOTAL-				.00	188,664.25-	
						188,664.25-	
						188,664.25-*	188,664.25
000100-0640	Equipment	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07 7/01/2022	YE-001-BEG.BAL.	-	107,290.00	.00	
	-TOTAL-				107,290.00	.00	
						107,290.00	
					107,290.00 *	107,290.00 *	107,290.00-
000100-0645	Accum Depreciation - Equipment	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07 7/01/2022	YE-001-BEG.BAL.	-	.00	50,068.68-	
	-TOTAL-				.00	50,068.68-	
						50,068.68-	
						50,068.68-*	50,068.68
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					1644130.23	
	ENCUMBRANCE					.00	
	YEAR TO DATE					1644130.23	
	BUDGET BALANCE					1644130.23-	

2023/01

ACCOUNT #	DESCRIPTION	DATE	REFERENCE/PO#	CURRENT AMOUNT		YEAR-TO-DATE	\$ BUDGET \$
				DEBITS	CREDITS		
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	** EDA FUND **		FUND#-501				
	ASSETS		MAJOR-000100				
000100-0645	Accum Depreciation - Equipment						
	Land		MAJOR-000110				
000110-0610	Land	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07	7/01/2022 YE-001-BEG.BAL.	-	1,073,864.27	.00	
	-TOTAL-				1,073,864.27	.00	
					1,073,864.27 *	1,073,864.27 *	1,073,864.27-
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					1073864.27	
	ENCUMBRANCE					.00	
	YEAR TO DATE					1073864.27	
	BUDGET BALANCE					1073864.27-	
	FUND EQUITY		MAJOR-000300				
000300-0100	Fund Balance	2/09/2023	B.FWD.			.00	.00
	BEG. YEAR BALANCE	2022/07	7/01/2022 YE-001-BEG.BAL.	-	.00	2,919,144.39-	
	BEG. YEAR BALANCE	2022/07	7/01/2022 YE-001-BEG.BAL.	-	.00	441,517.22-	
	-TOTAL-				.00	3,360,661.61-	
					3,360,661.61-*	3,360,661.61-*	3,360,661.61
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					3360661.61-	
	ENCUMBRANCE					.00	
	YEAR TO DATE					3360661.61-	
	BUDGET BALANCE					3360661.61	
	Revenue From Use of Money		MAJOR-015010				
015010-0001	Interest Earned - Bank Deposits	2/09/2023	B.FWD.			.00	.00
	-APPROPRIATION ENTRY-	2022/07	7/01/2022 BA-001-0000247	-			3,000.00-
	-TREASURER CASH REPORT	2022/07	7/29/2022 CS-001-20220729	-	.00	1,555.82-	
	-TREASURER CASH REPORT	2022/08	8/31/2022 CS-001-20220831	-	.00	2,005.09-	
	-TREASURER CASH REPORT	2022/09	9/30/2022 CS-001-20220930	-	.00	2,314.50-	
	-TREASURER CASH REPORT	2022/10	10/31/2022 CS-001-20221031	-	.00	2,956.60-	
	-TREASURER CASH REPORT	2022/11	11/30/2022 CS-001-20221130	-	.00	3,430.14-	
	-TREASURER CASH REPORT	2022/12	12/30/2022 CS-001-20221230	-	.00	4,064.51-	
	-TREASURER CASH REPORT	2023/01	1/31/2023 CS-000-20230131	-	.00	4,226.27-	
	-TOTAL-				.00	20,552.93-	
					20,552.93-*	20,552.93-*	17,552.93
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					20552.93-	

2023/01

ACCOUNT #	DESCRIPTION	DATE	REFERENCE/PO#	CURRENT AMOUNT		YEAR-TO-DATE	\$ BUDGET \$
				DEBITS	CREDITS		
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	** EDA FUND **		FUND#-501				
	Revenue From Use of Money		MAJOR-015010				
015010-0002	Interest Earned - Investments						
	ENCUMBRANCE					.00	
	YEAR TO DATE					20552.93-	
	BUDGET BALANCE					17552.93	
	Rent of General Property		MAJOR-015020				
015020-0001	Rent of General Property	2/09/2023	B.FWD.			.00	.00
	-APPROPRIATION ENTRY- 2022/07	7/01/2022	BA-001-0000247	-			126,000.00-
	-TREASURER CASH REPORT 2022/08	8/10/2022	CS-001-20220810	-	.00	10,552.96-	
	-TREASURER CASH REPORT 2022/09	9/01/2022	CS-001-20220901	-	.00	10,552.96-	
	-TREASURER CASH REPORT 2022/09	9/29/2022	CS-001-20220929	-	.00	10,552.96-	
	-TREASURER CASH REPORT 2022/10	10/25/2022	CS-001-20221025	-	.00	10,552.96-	
	-TREASURER CASH REPORT 2022/12	12/01/2022	CS-001-20221201	-	.00	10,552.96-	
	-TREASURER CASH REPORT 2022/12	12/30/2022	CS-001-20221230	-	.00	10,552.96-	
	-TOTAL-			.00	63,317.76-	63,317.76-	
					63,317.76-*	63,317.76-*	62,682.24-
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					63317.76-	
	ENCUMBRANCE					.00	
	YEAR TO DATE					63317.76-	
	BUDGET BALANCE					62682.24-	
	All Expenditures		MAJOR-040000				
040000-9999	All Expenditures	2/09/2023	B.FWD.			.00	.00
	-TREASURER CASH REPORT 2023/01	1/27/2023	CS-000-20230127	-	726,537.80	.00	
	-TOTAL EXPENDITURE-			726,537.80	.00	726,537.80	
					726,537.80 *	726,537.80 *	726,537.80-
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					726537.80	
	ENCUMBRANCE					.00	
	YEAR TO DATE					726537.80	
	BUDGET BALANCE					726537.80-	
	Trans to GF for EDA Expenses		MAJOR-995000				
995000-0100	Trans to GF for EDA Expenses	2/09/2023	B.FWD.			.00	.00
	-APPROPRIATION ENTRY- 2022/07	7/01/2022	BA-001-0000247	-			55,000.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	55,000.00
DEPT TOTAL.....	BALANCE FORWARD					.00	
	Trans to GF for EDA Expenses		MAJOR-995000				
	CURRENT MONTH					.00	
	ENCUMBRANCE					.00	
	YEAR TO DATE					.00	
	BUDGET BALANCE					55000.00	

FUND TOTAL.....	A S S E T S	.00	2,717,994.50	2,717,994.50
FUND TOTAL.....	L I A B I L I T Y	.00	3,360,661.61-	3,360,661.61-
FUND TOTAL.....	R E V E N U E	.00	83,870.69-	83,870.69-
FUND TOTAL.....	E X P E N S E	.00	726,537.80	726,537.80
FUND TOTAL.....		.00	.00	.00
FUND TOTAL.....	ENCUMBRANCE			.00
COMPANY TOTAL.....	A S S E T S	.00	2,717,994.50	2,717,994.50
COMPANY TOTAL.....	L I A B I L I T Y	.00	3,360,661.61-	3,360,661.61-
COMPANY TOTAL.....	R E V E N U E	.00	83,870.69-	83,870.69-
COMPANY TOTAL.....	E X P E N S E	.00	726,537.80	726,537.80
COMPANY TOTAL.....		.00	.00	.00
COMPANY TOTAL.....	ENCUMBRANCE			.00

2023/01

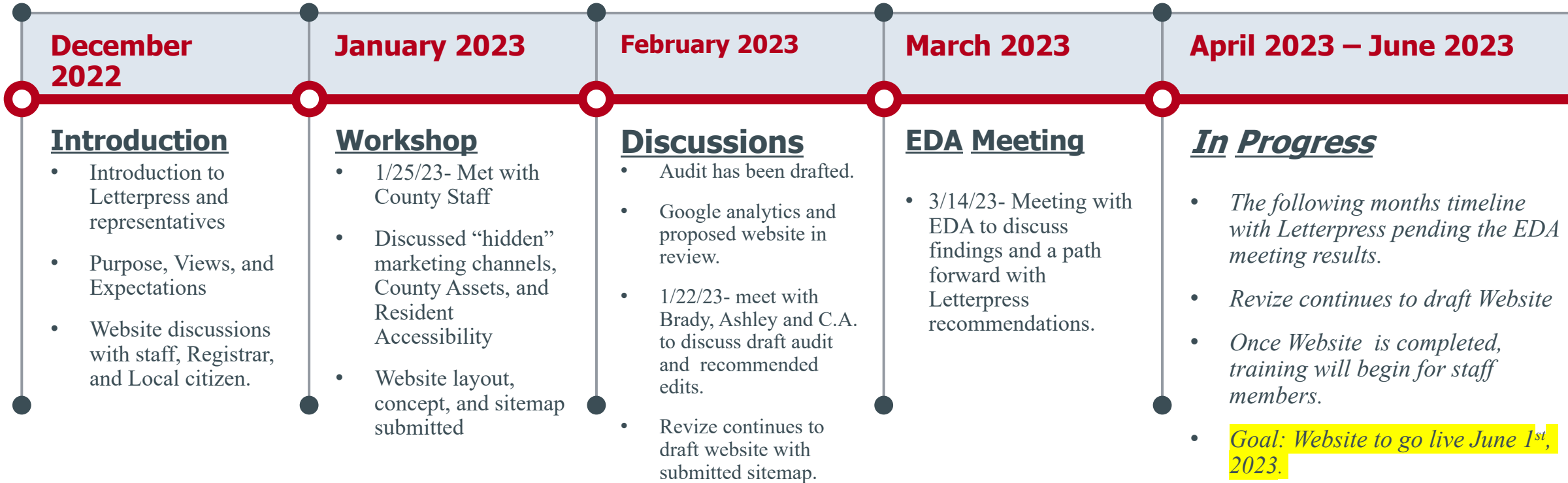
ACCOUNT #	DESCRIPTION	DATE	REFERENCE/PO#	CURRENT AMOUNT		YEAR-TO-DATE	\$ BUDGET \$
				DEBITS	CREDITS		
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	ECONOMIC DEVELOPMENT		FUND#-100				
	ECONOMIC DEVELOPMENT		MAJOR-081500				
081500-3160	Professional Services	2/09/2023	B.FWD.			.00	.00
	BARBER NEAL J B 2023/01	1/13/2023	AP-000-CFAA22011 -	1,000.00	.00		
	-TOTAL EXPENDITURE-			1,000.00	.00	1,000.00	
					1,000.00 *	1,000.00 *	1,000.00-
081500-3310	Repairs & Maintenance	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-3600	Advertising	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-5110	Electrical Services	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-5230	Telecommunications	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-5308	General Liability Ins.	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-5540	Travel-Convention/Education	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-5810	Dues/Association Memberships	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-6001	Office Supplies	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
081500-6007	Repairs & Maintenance Supplies	2/09/2023	B.FWD.			.00	.00
	-TOTAL EXPENDITURE-			.00	.00	.00	
					.00 *	.00 *	.00
DEPT TOTAL.....	BALANCE FORWARD					.00	
	CURRENT MONTH					1000.00	
	ENCUMBRANCE					.00	
	ECONOMIC DEVELOPMENT		MAJOR-081500				
	YEAR TO DATE					1000.00	
	BUDGET BALANCE					1000.00-	

FUND TOTAL.....	L I A B I L I T Y	.00	.00	.00
FUND TOTAL.....	R E V E N U E	.00	.00	.00
FUND TOTAL.....	E X P E N S E	.00	1,000.00	1,000.00
FUND TOTAL.....		.00	1,000.00	1,000.00
FUND TOTAL.....	ENCUMBRANCE			.00
COMPANY TOTAL.....	A S S E T S	.00	.00	.00
COMPANY TOTAL.....	L I A B I L I T Y	.00	.00	.00
COMPANY TOTAL.....	R E V E N U E	.00	.00	.00
COMPANY TOTAL.....	E X P E N S E	.00	1,000.00	1,000.00
COMPANY TOTAL.....		.00	1,000.00	1,000.00
COMPANY TOTAL.....	ENCUMBRANCE			.00



Letterpress and Revize

Timeline and Progress



Amelia County

02/09/2023



Amelia County

Virginia

Live

Work

Play

How can we help you?

MEETING MINUTES

CITY COUNCIL

COUNTY COURTS

ONLINE SERVICES

Upcoming Events

SEE FULL CALENDAR

« DECEMBER 2022 »						
S	M	T	W	T	F	S
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Dec 17

Sollicitudin Ullamcorper Mollis Justo Sem Bibendum Ornare Lorem Nibh Tristique

Dec 22

Donec id elit non mi porta gravida at eget metus. Nulla vitae elit libero, a pharetra augue.

Dec 26

Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Cras

Latest News

SEE ALL NEWS

DEC 21, 2022

Cras justo odio, dapibus ac facilisis in, egestas eget

DEC 22, 2022

Integer posuere erat a ante venenatis dapibus posuere

Amelia, VA

EDC AVAILABLE RESOURCES TOP INDUSTRIES

Business

EDA

Industrial Park



Physical Address
16360 Dunn St, Suite 101
Amelia Court House, VA 23002

Mailing Address
P.O. Box A
16360 Dunn St, Suite 101
Amelia Court House, VA 23002

Phone: (804) 561-3039



DEPARTMENTS

Employment
County Clerk
Finances
Building
Public Works
Zoning
Code Enforcement
Law Enforcement
Utilities
Environmental

TOP PAGES

News & Announcement
Event Calendar
Community Links
Phone Numbers
Voter Information
Animal Control
Circuit Court
Education
Parks and Recreation
Programs
Sanitary District

HELP

Home
Site Map
Contact Us
Accessibility
Copyright Notices
Privacy Policy



Related Links

Vehicula Mattis Ornare
Parturient Mollis

Cras Ornare Vulputate

Venenatis Ultricies Dapibus
Bibendum

Page Title Lorem Ipsum

Cras Ridiculus Aenean
Consectetur Magna

Porta Malesuada Euismod
Pharetra Mattis

[Home](#) > [Department Name](#) > Lorem Ipsum Dolor Page Title

Page Title Lorem Ipsum Dolor

Nulla vitae elit libero, a pharetra augue. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus sagittis lacus vel augue laoreet rutrum faucibus. Cras mattis consectetur purus sit amet fermentum. Cras



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- Nulla vitae elit libero, a pharetra augue. Donec id elit non mi porta gravida at eget metus.
- Nullam id dolor id nibh ultricies vehicula ut id elit. Praesent commodo cursus magna, vel sceleris.

Subheading (h2)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam id dolor id nibh ultricies vehicula ut id elit. Donec id elit non mi porta gravida at eget metus. Donec sed odio dui. Nulla vitae elit libero, a pharetra augue. Integer posuere erat a

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Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Vestibulum id ligula porta felis euismod semper. Etiam porta sem malesuada magna mollis euismod. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Nullam id dolor id nibh ultricies vehicula ut id elit. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Nullam quis risus eget urna mollis ornare vel eu leo. Nullam id dolor id nibh ultricies vehicula ut id elit. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Nulla vitae elit libero, a pharetra augue. Vestibulum id ligula porta felis euismod semper. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor.

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Integer posuere erat a ante venenatis dapibus posuere velit aliquet. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Integer



Physical Address
16360 Dunn St, Suite 101
Amelia Court House, VA 23002

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P.O. Box A
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DEPARTMENTS

- Employment
- County Clerk
- Finances
- Building
- Public Works
- Zoning
- Code Enforcement
- Law Enforcement
- Utilities
- Environmental

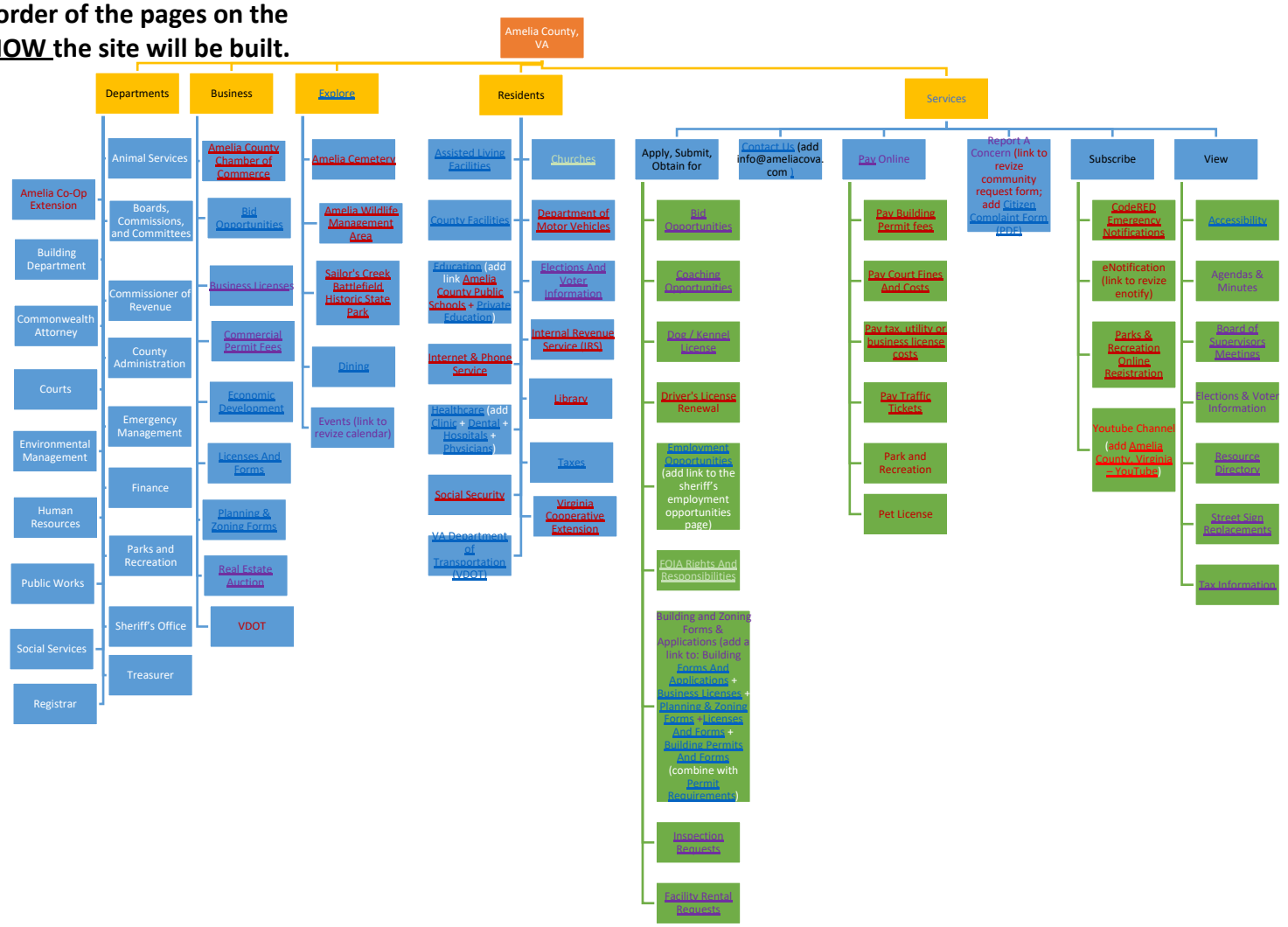
TOP PAGES

- News & Announcement
- Event Calendar
- Community Links
- Phone Numbers
- Voter Information
- Animal Control
- Circuit Court
- Education
- Parks and Recreation Programs
- Sanitary District

HELP

- Home
- Site Map
- Contact Us
- Accessibility
- Copyright Notices
- Privacy Policy

NOTE: Please pay attention to the order of the pages on the sitemap because this determines HOW the site will be built.



SITEMAP KEY:

- BLUE HYPERLINKS - CITY WEBSITE PAGES
- PURPLE HYPERLINKS - LINKED TO PAGE EXISTED ON SITEMAP
- RED HYPERLINKS - EXTERNAL WEBSITE PAGE
- PLAIN TEXT - NEW/PLACEHOLDER PAGE
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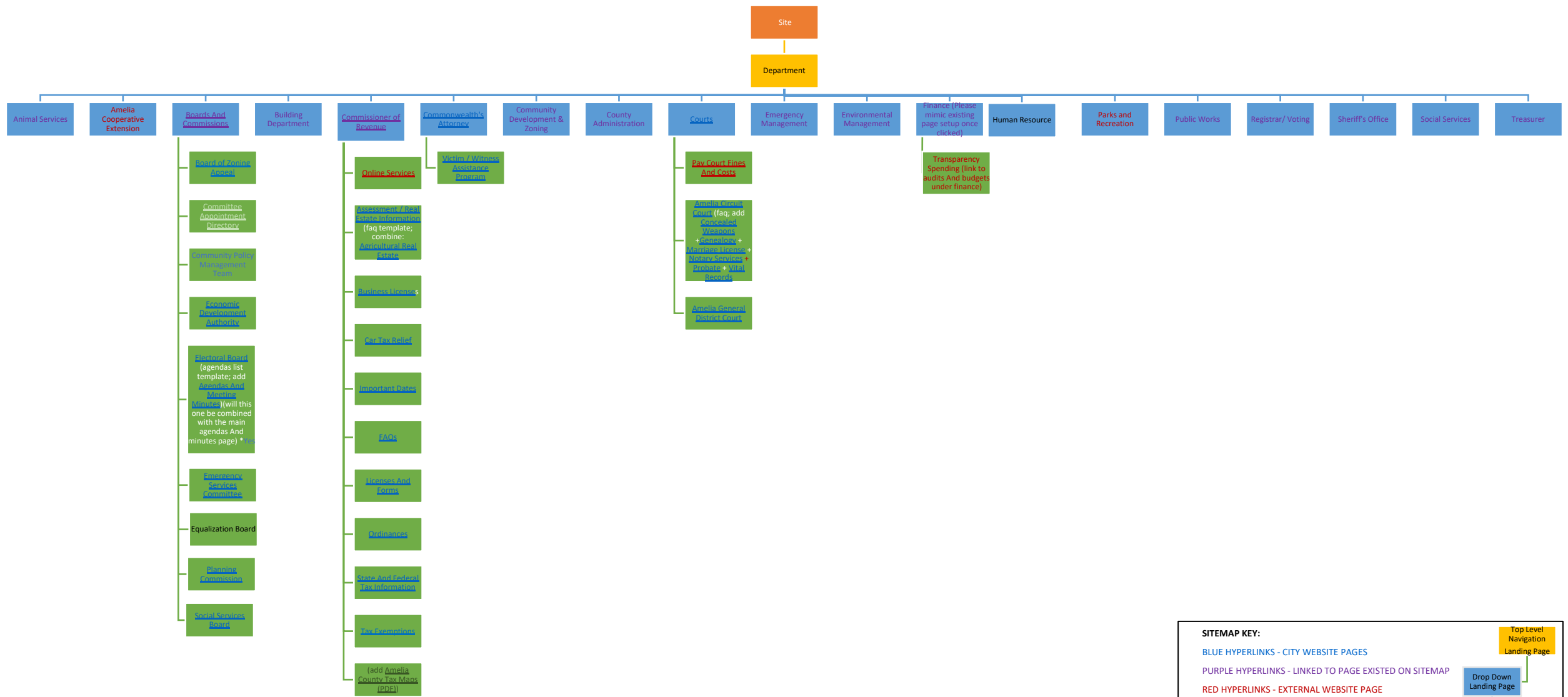
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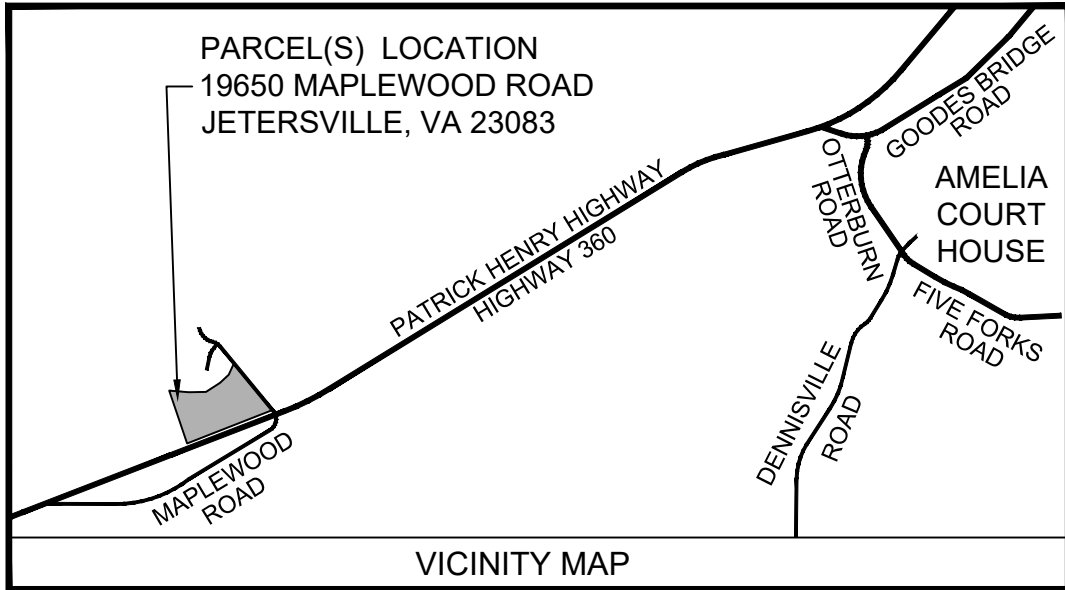
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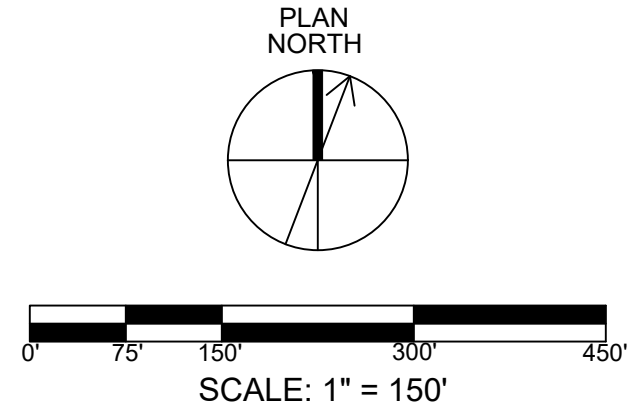
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PROPERTY SUMMARY	
PARCEL IDENTIFICATION:	40-63, 40-62A
LOCATION:	19650 PATRICK HENRY HWY AMELIA COURT HOUSE, VA 23002
PARCEL ACREAGE:	132.24± ACRES - TOTAL
ZONED:	RURAL RESIDENTIAL DISTRICT (RR-3)
DISTRICT:	LEIGH - 40-63 GILES - 40-62A

NOTES:
1. PROPERTY INFORMATION HEREIN OBTAINED FROM
AMELIA COUNTY RECORDS & COUNTY GIS



CONCEPTUAL MASTER PLAN
BORUM TRACT
Located in LEIGH & GILES DISTRICTS
AMELIA COUNTY, VIRGINIA



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 FAX (804) 698-4178
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Travis A. Voyles
Acting Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

Jerome Brooks
Regional Director

January 20, 2023

Betty Borum
19650 Maplewood Drive
Amelia Courthouse, VA 23002

RE: Site name: Emgo, 19700 Patrick Henry Hwy, Amelia, VA 23002
DEQ tracking number PC# 2023-4070

Dear Sir or Madam:

This correspondence is in regard to the Department of Environmental Quality (DEQ), Piedmont Regional Office site investigation for the referenced site.

Based on our review of all reports, the DEQ believes petroleum contamination levels at this site do not warrant further assessment or corrective action. Should environmental problems develop in the future which the DEQ determines are related to this release, additional investigation and corrective action may be required in accordance with the applicable State and Federal regulations.

All monitoring wells installed in accordance with this investigation should be properly abandoned to preclude the possibility of surficial contamination reaching ground water via these conduits. Please contact the assigned caseworker for this site for the proper well abandonment procedure and reimbursement information before undertaking this activity.

If your clean-up qualified for reimbursement of reasonable and necessary costs, your claims must be submitted within two years of the date of this letter in order to be eligible for reimbursement as stipulated by Virginia Law.

The DEQ thanks you for your efforts and cooperation in cleaning up this site. If you require additional information, please contact this office at (804) 527-5020.

Sincerely,

A handwritten signature in cursive script, reading "Robyne Bridgman".

Robyne Bridgman
Remediation Regional Manager

January 25, 2023

Amelia County Economic Development Authority
P.O. Box A
16360 Dunn Street
Amelia, VA 23002

**RE: Phase II Environmental Site Assessment
Borum Property/Former EMGO
19700 Patrick Henry Highway
Amelia Courthouse, VA 23002
REG Project No: REG22.082496**

Dear Sir or Madam:

Richmond Environmental Group, Inc. is please to present this Phase II Environmental Site Assessment (ESA) for the above referenced site. If you have any questions regarding the report, please feel free to contact me at (804) 836-6370.

Sincerely,



Todd J. Reyher
Project Manager

Enclosures

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT**

Conducted on:

**Borum Property/Former EMGO
19700 Patrick Henry Highway
Amelia Courthouse, Virginia 23002**

Prepared for:

**Amelia County Economic Development Authority
P.O. Box A
16360 Dunn Street
Amelia, Virginia 23002**

Prepared by:

**Richmond Environmental Group, Inc.
3584 Fairbourne Place
Powhatan, Virginia 23139**

January 25, 2023

REG Project No: REG22.082496

EXECUTIVE SUMMARY

Richmond Environmental Group, Inc. (REG) performed a Phase II Environmental Site Assessment (ESA) of the Borum Property/Former EMGO addressed as 19700 Patrick Henry Highway in Amelia, Virginia (subject property). The subject property consists of one parcel of land totaling approximately 1.53 acres, and is currently developed with one (1) approximately 14,700 square-foot, single-story commercial retail building. The subject property is improved with asphalt parking lots to the south and east of the subject property building, a concrete walkway surrounding the perimeter of the subject property building, and landscaped areas.

According to a Phase I ESA report prepared by ONE Environmental Mid Atlantic, LLC (ONE), three (3) Recognized Environmental Conditions (RECs) were identified in relation to the subject property. The three RECs included the potential presence of multiple underground storage tanks (USTs) on the subject property, the presence of a 1,000-gallon aboveground storage tank (AST) adjacent to the antique store building, and the potential discharge of fuel or automotive fluids into floor drains present in the former car wash building. Based on the findings of the Phase I ESA, ONE recommended a Phase II ESA in order to further investigate the identified RECs for the subject property.

As part of this Phase II ESA, REG performed a review of the files on record with the Virginia Department of Environmental Quality (VDEQ) relating to the subject property. According to the records obtained, the subject property contained four (4) 4,000-gallon capacity gasoline USTs that were installed in 1972. According to a Notification for USTs Form 7530 on file with the DEQ, all four USTs were removed in 1988. In order to confirm the USTs had been previously removed from the subject property, a ground penetrating radar (GPR) survey was performed during this Phase II ESA. The GPR survey did not identify the presence of any existing UST systems on the subject property. Additionally, the GPR survey identified potential backfill material/areas of disturbed soil along the southern side of the former gas station building, indicating the potential location of the former USTs.

The scope of work for this Phase II ESA included a ground penetrating radar (GPR) survey, advancing five (5) soil borings in the vicinity of the former USTs basin, the collection and analysis of soil and groundwater samples from the soil borings, and the collection and analysis of soil samples from around the heating oil AST and from sediment present in the floor drains of the car wash building. Adsorbed- and dissolved-phase petroleum compounds were detected in two of the five soil borings advanced in the area of the former USTs basin. Total petroleum hydrocarbon (TPH) gasoline range organics (GRO) was detected at maximum concentrations of 15,100 parts per million (ppm) in soil, and 67.6 milligrams per liter (mg/L) in groundwater. No petroleum compounds were detected above the laboratory detection limits in the soil samples collected from the vicinity of the heating oil AST. Two volatile organics compounds (VOCs), methylene chloride and 1,2,4-trimethylbenzene, were detected in the soil/sediment samples collected from the floor drains in the car wash building. Methylene chloride and 1,2,4-trimethylbenzene were detected at maximum concentrations of 70.2 parts per billion (ppb) and 10.6 ppb, respectively. The minimal concentrations of methylene chloride and 1,2,4-

trimethylbenzene do not appear to be indicative of the direct discharge of petroleum products into the floor drains, and the detections are likely associated with runoff entering the drains.

Based on the detection of petroleum compounds in the soil borings advanced in the area of the former USTs basin, the results of this Phase II ESA were reported to the VDEQ on September 29, 2022. The release was assigned pollution complaint (PC) number 2023-4070 by the VDEQ. In order to further assess the extent of the petroleum contamination and the associated risk to human health and the environment, the VDEQ requested Site Characterization Report (SCR) activities be performed at the site. REG performed the SCR investigation in October through November 2022, which included the installation of nine soil borings/monitoring wells, the collection and analysis of soil and groundwater samples, and a risk assessment. Adsorbed- and dissolved-phase gasoline constituents were detected in five of the nine monitoring wells installed during the SCR investigation. Free-phase gasoline (free product) was also detected in one of the nine monitoring wells at a maximum thickness of 0.07 feet during the SCR investigation. Although adsorbed-, dissolved-, and free-phase gasoline contamination was detected at the site, no potentially at-risk sensitive receptors were identified at the site and surrounding properties during the SCR investigation. The site supply well is constructed as a drilled well, and is located approximately 140 feet, and crossgradient, from the source of the release. No petroleum compounds were detected in a sample collected from the site supply well during the SCR investigation. The nearest identified offsite supply well in a downgradient location is located approximately ¼-mile from the source. The nearest identified surface water body is North Branch Nibbs Creek, located approximately ¼-mile from the furthest downgradient monitoring well location. The site is currently vacant, with both the former convenience store building to the north and warehouse building to the northwest, unoccupied. The nearest inhabitable structure in a downgradient direction is located approximately ¼-mile from the source area. Additionally, groundwater was observed at depths ranging between 25 to 30 feet below ground surface across the site, and risk from the vapor-phase of the contamination is considered unlikely. Based on the results of the SCR investigation, PC# 2023-4070 was closed by the VDEQ with a no further action designation of January 20, 2023.

Based on the results of the SCR investigation, combined with the case closure designation by the VDEQ, REG concludes that the gasoline contamination detected does not appear to present a risk to the current or future use of the subject property. Consequently, no further investigation or remedial action is warranted. As a best management practice, REG recommends that the location and downgradient direction of the gasoline contamination should be noted during planning of the future redevelopment of the subject property, in order to avoid creating potential exposure pathways.

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1.0 INTRODUCTION

Richmond Environmental Group, Inc. (REG) performed a Phase II Environmental Site Assessment (ESA) of the Borum Property/Former EMGO addressed as 19700 Patrick Henry Highway in Amelia, Virginia (subject property). The purpose of this Phase II ESA was to evaluate subsurface conditions at the subject property in order to assess for the presence of contamination associated with the historical use of the subject property.

1.1 Background

According to a Phase I ESA report prepared by ONE Environmental Mid Atlantic, LLC (ONE), three (3) Recognized Environmental Conditions (RECs) were identified in relation to the subject property. The identified RECs included:

- (1) Underground Storage Tanks (USTs) – A UST is documented in the VDEQ database to have been installed in approximately 1972 and removed in approximately 1988. No documentation was available concerning an assessment of subsurface conditions when the UST was reportedly removed. Additionally, vent pipes were observed on the north side of the steep roof building.
- (2) Aboveground Storage Tank (AST) – A AST of approximately 1,000-gallon capacity or greater was observed along the east exterior wall of the antique store building. The AST does not appear to have been registered with VDEQ and based on the apparent age of the AST may have impacted the subsurface at the property.
- (3) Floor Drains – Floor drains were observed in an apparent out-of-use car wash building. Auto maintenance appears to be active within this building. Any release of fuel or automotive fluids leaked or discharged through the floor drains have the potential to impact the subsurface of the property.

Based on the findings of the Phase I ESA, ONE recommended a Phase II ESA in order to further investigate the identified RECs for the subject property.

2.0 SITE DESCRIPTION

The subject property is located in a rural, mixed-use area of Amelia County, Virginia, consisting of a mixture of commercial, residential, and agricultural properties. The subject property consists of one (1) parcel of land totaling approximately 140.5 acres. The subject property is currently developed with the former gas station building on the southern portion of the subject property, a two-bay car wash building to the east of the former gas station, and a commercial store/warehouse building formerly utilized as an antique store to the west/northwest of the gas station building. The subject property is improved with asphalt and gravel parking areas along the southern side of the property, utilities, and landscaped areas. The subject property was vacant at the time of this investigation. The subject property location is depicted on Figure 1, and a site plan showing pertinent features of the subject property is included as Figure 2.

2.1 Topography

According to the U.S. Geological Survey 7.5-minute topographic map of the Jetersville, Virginia Quadrangle (1986), the site is situated on a gently sloping terrain with surface elevations ranging from approximately 380 feet above mean sea level on the southern portion of the site, to 320 feet along the northern property boundary. According to the topographic map, the nearest identified surface water body is North Branch Nibbs Creek, which forms the northern property boundary.

2.2 Geology

Based on a review of the U.S. Department of Agriculture on-line Soil Survey, the dominant soil composition in the general vicinity of the subject property is classified as Udorthents, loamy, 2 to 25 percent slopes. The complex consists of moderately well drained to excessively drained soils with a parent material of residuum weathered from granite and gneiss.

Based on an on-line review of the *Geologic Map of Virginia* (Virginia Division of Mineral Resources), the subject property is located in the Piedmont Physiographic Province of Virginia. Specifically, the site is underlain by Gneissic Granite and Granodiorite consisting of light-gray to white, fine- to medium-grained, massive to foliated, muscovite-biotite gneissic granite to granodiorite containing minor garnet, and xenoliths of biotite gneiss and amphibolite.

3.0 SUBJECT PROPERTY INVESTIGATION

Prior to initiating field activities associated with the Phase II ESA scope of work, REG submitted a freedom of information act (FOIA) request to the VDEQ in order to obtain available records on file with the VDEQ relating to the former gas station/USTs located on the subject property. REG received two (2) Notification for Underground Storage Tanks Form 7530s from the VDEQ in response to the FOIA request. The Form 7530s document the installation of four (4) 4,000-gallon gasoline USTs at the subject property in 1972, as well as the removal of all four USTs in 1988. Copies of the Form 7530s received from the VDEQ are included in Appendix A.

3.1 GPR Survey

On August 31, 2022, REG subcontract Ground Penetrating Radar Systems (GPRS) to perform a ground penetrating radar (GPR) survey of the subject property. The GPR survey was performed in order to assess for the presence of any USTs or UST-related piping around the former gas station building. The GPR survey consisted of scanning the areas around all four sides of the former gas station building in a grid pattern to locate any potential USTs. Equipment used included a 400 MHz GPR antenna and a magnetometer. Additionally, the four (4) vent pipes identified on the northern side of the former gas station building were traced utilizing an electromagnetic pipe and cable locator. No evidence of any existing USTs was identified on the subject property during the GPR survey. All four vent pipes were traced to the south of the gas station building,

and were observed to terminate immediately to the south of the concrete pad associated with the former gas station dispenser island. The area of the vent pipe termination corresponds with an area of disturbed soil/possible backfill material identified during the GPR survey.

The GPR survey was also utilized in an attempt to locate the discharge lines associated with the floor drains in the car wash building. Two separate lines, one for each floor drain, were identified on the northern side of the car wash building. The drain lines were observed to approximately 50 feet north from the floor drains, at which point the lines appeared to terminate. No evidence of a discharge location and/or outfall was identified in the area of the observed drain line termination.

3.2 AST Assessment

In order to assess if a release of heating oil has occurred from the aboveground storage tank (AST) located adjacent to the eastern side of the warehouse building, REG performed an assessment of the AST on September 13, 2022. The AST was measured to be approximately 500-gallon capacity, and observed to be in fair condition with no evidence of corrosion holes/breaches in the tank. A visual inspection of the tank and surrounding ground surface was performed, and no visual or olfactory evidence of leakage observed on the tank or ground surface in the vicinity of the AST. In order to confirm that a release of heating oil had not occurred from the 500-gallon AST, two soil samples, AST-1 and AST-2, were collected from the AST system. Soil sample AST-1 was collected from the ground surface immediately below the AST, and soil sample AST-2 was collected from below the copper product lines associated with the AST at a depth of approximately one foot below ground surface.

The two soil samples (AST-1 and AST-2) were transferred directly into laboratory-provided containers, labeled, and stored on ice pending delivery to Pace Analytical Services, LLC in Huntersville, North Carolina. Both soil samples were analyzed for total petroleum hydrocarbon (TPH) diesel range organics (DRO) analysis via EPA Method 8015C. TPH DRO was not detected above the laboratory detection limits in either soil sample collected, indicating a release of heating oil has not occurred from the 500-gallon AST. A tabular summary of the soil sample analytical results is included in Table 1. The laboratory Certificate of Analysis and chain-of-custody records are provided in Appendix B.

3.3 Floor Drain Assessment

In order to assess if contaminants had been discharged into the two floor drains located in the former car wash building, REG performed an assessment of the floor drains on September 13, 2022. Based on the inconclusive results of the GPR survey regarding the location of the floor drains discharge location, samples of the sediment present in each floor drain catch basin were collected as part of the assessment. Each floor drain consists of a catch basin located in the center of each car wash bay, which is designed to collect

water and sediment, with a four-inch discharge pipe located at the top of the catch basin. In the event that contaminants were introduced to the floor drains, based on the design of the catch basin, the contaminants would be present in the sediment inside the catch basin. Two samples (FD-1 and FD-2) of the sediment were collected directly from each floor drain in order to assess if contamination (fuels, lubricants, automotive fluids, etc.) had been discharged into the floor drains.

The two sediment samples (FD-1 and FD-2) were transferred directly into laboratory-provided containers, labeled, and stored on ice pending delivery to Pace Analytical Services, LLC in Huntersville, North Carolina. Both sediment samples were analyzed for volatile organic compounds (VOCs) analysis via EPA Method 8260D. Two VOCs, methylene chloride and 1,2,4-trimethylbenzene, were detected in the sediment samples collected from the floor drains. Methylene chloride and 1,2,4-trimethylbenzene were detected at maximum concentrations of 70.2 micrograms per kilogram (ug/kg) or parts per billion (ppb) and 10.6 ppb, respectively. The minimal detections of methylene chloride and 1,2,4-trimethylbenzene do not appear indicative of the direct discharge or contaminants into the floor drains, and are likely attributed to runoff entering the drains. A tabular summary of the sediment sample analytical results is included in Table 2. The laboratory Certificate of Analysis and chain-of-custody records are provided in Appendix B.

3.4 USTs Subsurface Investigation

On September 12 and 13, 2022, REG performed a subsurface investigation at the site to assess soil and groundwater conditions in the area of the former gasoline USTs system. The subsurface investigation consisted of advancing five (5) soil borings (SB-1 through SB-5) in the areas of the former USTs basin and product dispenser island. The soil borings were advanced at the subject property using a UTV-mounted direct-push (Geoprobe-type) drill rig equipped with continuous-flight samplers with an internal diameter of two inches. All five soil borings were advanced to a depth of 25 feet below ground surface. Disposable acetate sampler liners were used to collect continuous five-foot soil samples during drilling. Drilling and sampling were conducted in accordance with ASTM-D1586-87. The continuous soil samples were collected for soil characterization, visual observation, and field screening by an onsite geologist.

The field sampling procedures include proper decontamination of the drilling equipment between each boring to prevent downhole and cross-contamination. Upon completion of the soil borings and sampling operations, the boreholes were sealed with bentonite and backfilled using either recovered soil or grout, and restored at the ground surface to match the surrounding area.

Headspace screening of soil samples collected during soil boring advancement was conducted using a MiniRAE 3000 photoionization detector (PID) calibrated to 100 ppm isobutylene. This instrument is capable of detecting volatile organic compound (VOC) vapors, typically associated with petroleum fuels, ranging between 0.0 ppm and 15,000

ppm. Headspace monitoring of equilibrated soil samples collected during the soil boring advancement revealed detectable VOC vapor concentrations in soil borings SB-3 and SB-4, with concentrations ranging between 0.1 ppm to a maximum of 8,924 ppm in soil boring SB-3. Detectable VOC vapor concentrations were not recorded during the screening of soils from SB-1, SB-2, and SB-5.

One soil sample was retained from each soil boring for laboratory analysis. The soil sample locations were selected based on field screening analysis, as well as proximity to groundwater. Soil samples were retained from soil borings SB-1, SB-2, SB-4, and SB-5 at a depth of approximately 20 feet below ground surface, corresponding with the observed soil-groundwater interface in each boring. A soil sample was retained from SB-3 at a depth of approximately 10 feet below ground surface, based on the presence of elevated field screening analysis results. The soil samples (identified as SB-1-4, SB-2-4, SB-3-2, SB-4-4, and SB-5-4) were transferred directly into laboratory-provided containers, labeled, and stored on ice pending delivery to Pace Analytical Services, LLC in Huntersville, North Carolina. All five soil samples were analyzed for total petroleum hydrocarbon (TPH) gasoline range organics (GRO) analysis via EPA Method 8015C. TPH GRO was detected in two of the five soil samples collected, with a maximum concentration of 15,100 milligrams per kilogram (mg/kg) or parts per million (ppm) detected in soil sample SB-3-2. A tabular summary of the soil sample analytical results is included in Table 3. The laboratory Certificate of Analysis and chain-of-custody records are provided in Appendix B.

Based on field screening analysis, two of the five soil borings (SB-3 and SB-4) were converted to temporary groundwater monitoring wells by installing one-inch diameter polyvinyl chloride (PVC) well screen in each boring. Groundwater samples were then collected from each temporary monitoring well using a dedicated high-density polyurethane bailer and were transferred directly into laboratory-provided containers, labeled, and stored on ice pending delivery to Pace Analytical Services, LLC in Huntersville, North Carolina. The two groundwater samples (identified as SB-3 and SB-4) were analyzed for TPH GRO analysis via EPA Method 8015C and MTBE, BTEX, naphthalene analysis via EPA Method 8260D. Dissolved-phase gasoline constituents were detected above the laboratory detection limits in both groundwater samples collected during this investigation. A tabular summary of the groundwater sample analytical results is included in Table 4. The laboratory Certificate of Analysis and chain-of-custody records are provided in Appendix B.

4.0 VDEQ SCR INVESTIGATION

The the adsorbed- and dissolved-phase gasoline constituents detected during the UST subsurface investigation provide evidence of a release of gasoline from the former USTs system. Based on the evidence of a release of gasoline on the subject property, the results of this Phase II ESA were reported to the VDEQ on September 29, 2022. The release was assigned pollution complaint (PC) number 2023-4070 by the VDEQ. In order to further investigate the extent of the gasoline contamination, as well as assess the potential risk to human health and the

environment, the VDEQ requested Site Characterization Report (SCR) activities be performed at the subject property. REG performed the requested SCR activities in October through November 2022, which consisted of the installation of nine soil borings/monitoring wells, the collection and analysis of soil and groundwater samples, and a risk assessment. Adsorbed- and dissolved-phase gasoline constituents were detected in five of the nine monitoring wells installed during the SCR investigation. Free-phase gasoline (free product) was also detected in one of the nine monitoring wells at a maximum thickness of 0.07 feet during the SCR investigation. Groundwater flow direction was calculated utilizing the nine groundwater monitoring wells, and groundwater was measured to flow towards the north/northeast. A summary of the soil and groundwater analytical results from the SCR investigation are included in Tables 3 and 4, respectively. A groundwater gradient map and dissolved-phase concentration map from the SCR investigation are included as Figure 3 and Figure 4, respectively.

Although adsorbed-, dissolved-, and free-phase gasoline contamination was detected at the subject property, no potentially at-risk sensitive receptors were identified at the site and surrounding properties during the SCR investigation. The site supply well is constructed as a drilled well, and is located approximately 140 feet, and crossgradient, from the source of the release. No petroleum compounds were detected in a sample collected from the site supply well during the SCR investigation. The nearest identified offsite supply well in a downgradient location is located approximately ¼-mile from the source. The nearest identified surface water body is North Branch Nibbs Creek, located approximately ¼-mile from the furthest downgradient monitoring well location. The site is currently vacant, with both the former convenience store building to the north and warehouse building to the northwest, unoccupied. The nearest inhabitable structure in a downgradient direction is located approximately ¼-mile from the source area. Additionally, groundwater was observed at depths ranging between 25 to 30 feet below ground surface across the site, and risk from the vapor-phase of the contamination is considered unlikely.

Based on the results of the SCR investigation, PC# 2023-4070 was closed by the VDEQ with a no further action designation of January 20, 2023. A copy of the VDEQ case closure letter is included in Appendix C.

5.0 RISK ASSESSMENT

The results of the SCR investigation concluded that the gasoline contamination at the subject property does not appear to present at risk to human health or the environment, based on the current use of the subject property and surrounding areas. According to information provided to REG, a conceptual plan is in place for the redevelopment of the subject property. At this time, the proposed redevelopment will consist of a commercial/industrial complex. The following is a limited risk assessment for the redevelopment of the subject property, based on identified potential exposure pathways.

5.1 Drinking Water

Based on information available to REG, municipal water is not available in the area of the subject property. Therefore, groundwater will likely be utilized for potable purposes at the subject property. Although the gasoline contamination at the subject property has resulted in impact to groundwater, based on the relatively minimal extent of the groundwater contamination in relation to the size of the subject property, risk of impact to drinking water is considered minimal. As a best management practice, REG recommends that any future drinking water wells installed on the subject property should not be located in the area of the dissolved-phase contamination plume, or immediately downgradient of the dissolved-phase plume.

5.2 Contaminated Soil and Groundwater

The results of this investigation revealed the presence of gasoline contaminated soil and groundwater on the subject property. Although contaminated soil and groundwater are present, based on the initial conceptual redevelopment site plan, contaminated soil and/or groundwater are unlikely to be encountered during redevelopment activities. Groundwater was observed at depths ranging between 25 to 30 feet below ground surface at the subject property, and it is unlikely that contaminated groundwater will be encountered. No near-surface gasoline contamination was detected during this investigation, with contamination detected at a depth of approximately 10 feet below ground surface in the source area (former USTs basin). Outside of the source area, contaminated soil was only observed along the soil-groundwater interface at depths ranging between 25 to 30 feet below ground surface. Based on the observed depth to contaminated soil at the subject property, it is unlikely that contaminated soil will be encountered during redevelopment activities. In the unlikely event that gasoline-contaminated soil is encountered during redevelopment, based on the minimal extent of the contamination, the contamination is unlikely to pose an unacceptable risk or hazard. As a best management practice, REG recommends that any potential contaminated soil encountered during redevelopment be managed and disposed in accordance with all applicable regulations.

5.3 Vapor Intrusion

Although soil vapor samples were not collected as part of this investigation, the gasoline contamination detected in the soil and groundwater samples indicates the likely presence of vapor-phase contamination on the subject property. The conceptual site plan for the redevelopment of the subject property consists of slab-on-grade construction of all onsite buildings, and does not include any subsurface structures (basements, parking garages, etc.). Based on the observed depth to groundwater of approximately 25 to 30 feet below ground surface, combined with the absence of proposed subsurface structures, REG concludes that risk of vapor intrusion is considered unlikely. As a best management practice, REG recommends that any future buildings in the vicinity of the source area include a sub-slab vapor barrier.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Richmond Environmental Group, Inc. (REG) performed a Phase II ESA of the Borum Property/Former EMGO addressed as 19700 Patrick Henry Highway in Amelia, Virginia. The Phase II ESA consisted of a GPR survey, UST subsurface investigation, assessment of the heating oil AST, and assessment of the floor drains associated with the former car wash building.

Based on the results of the SCR investigation, combined with the case closure designation by the VDEQ, REG concludes that the gasoline contamination detected does not appear to present a risk to the current or future use of the subject property. Consequently, no further investigation or remedial action is warranted. As a best management practice, REG recommends that the location and downgradient direction of the gasoline contamination should be noted during planning of the future redevelopment of the subject property, in order to avoid creating potential exposure pathways.

Figures

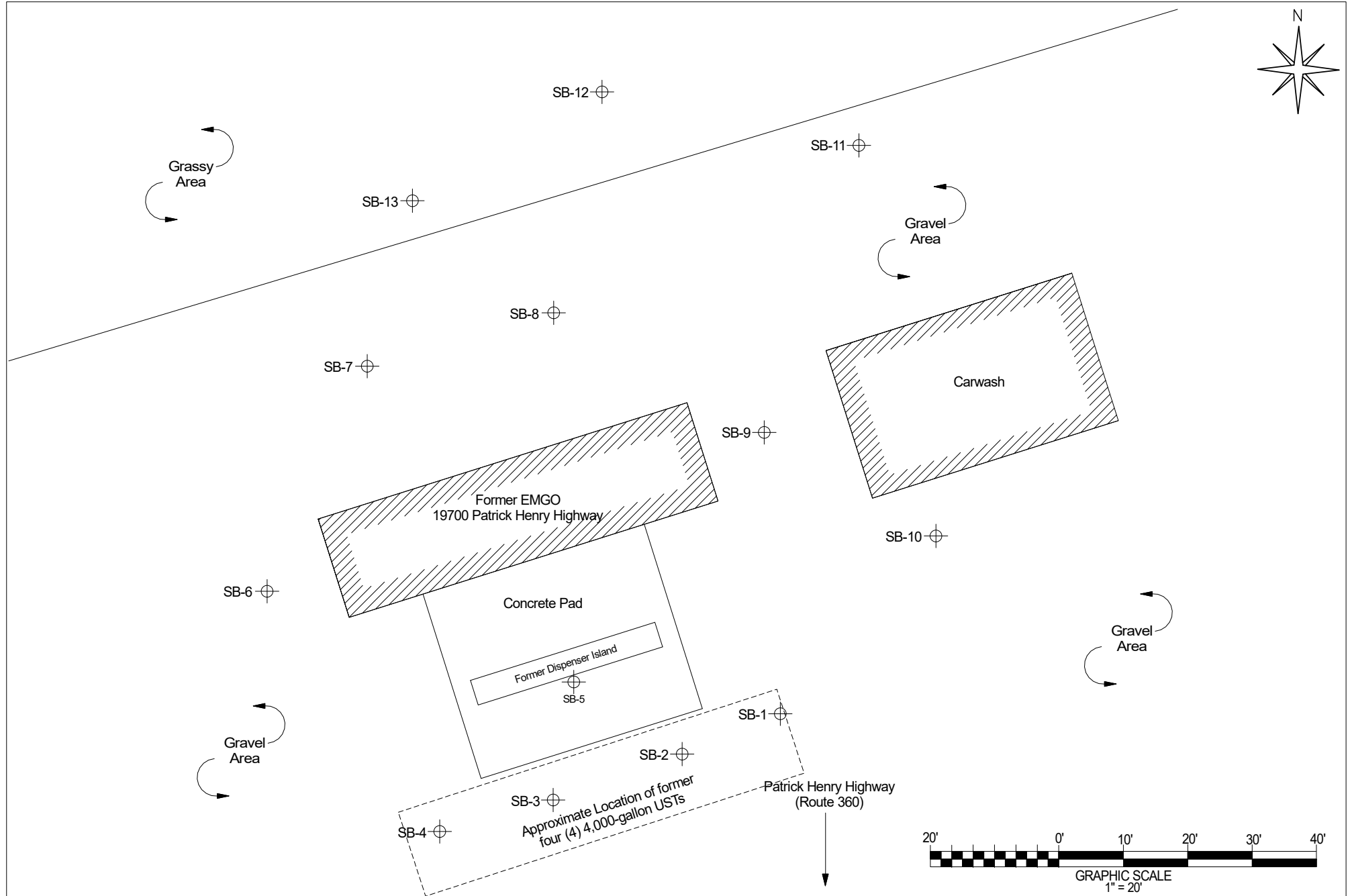
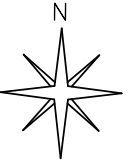


Source:	United States Department of the Interior Geological Survey 7.5 Minute Series Topographic Map
Location:	Jetersvilles, Virginia
Contour Interval	10 Feet
Date:	1991
Scale:	1 : 24,000

Figure 1
Site Location Map

Former EMGO
19700 Patrick Henry Highway
Amelia Courthouse, Virginia





LEGEND

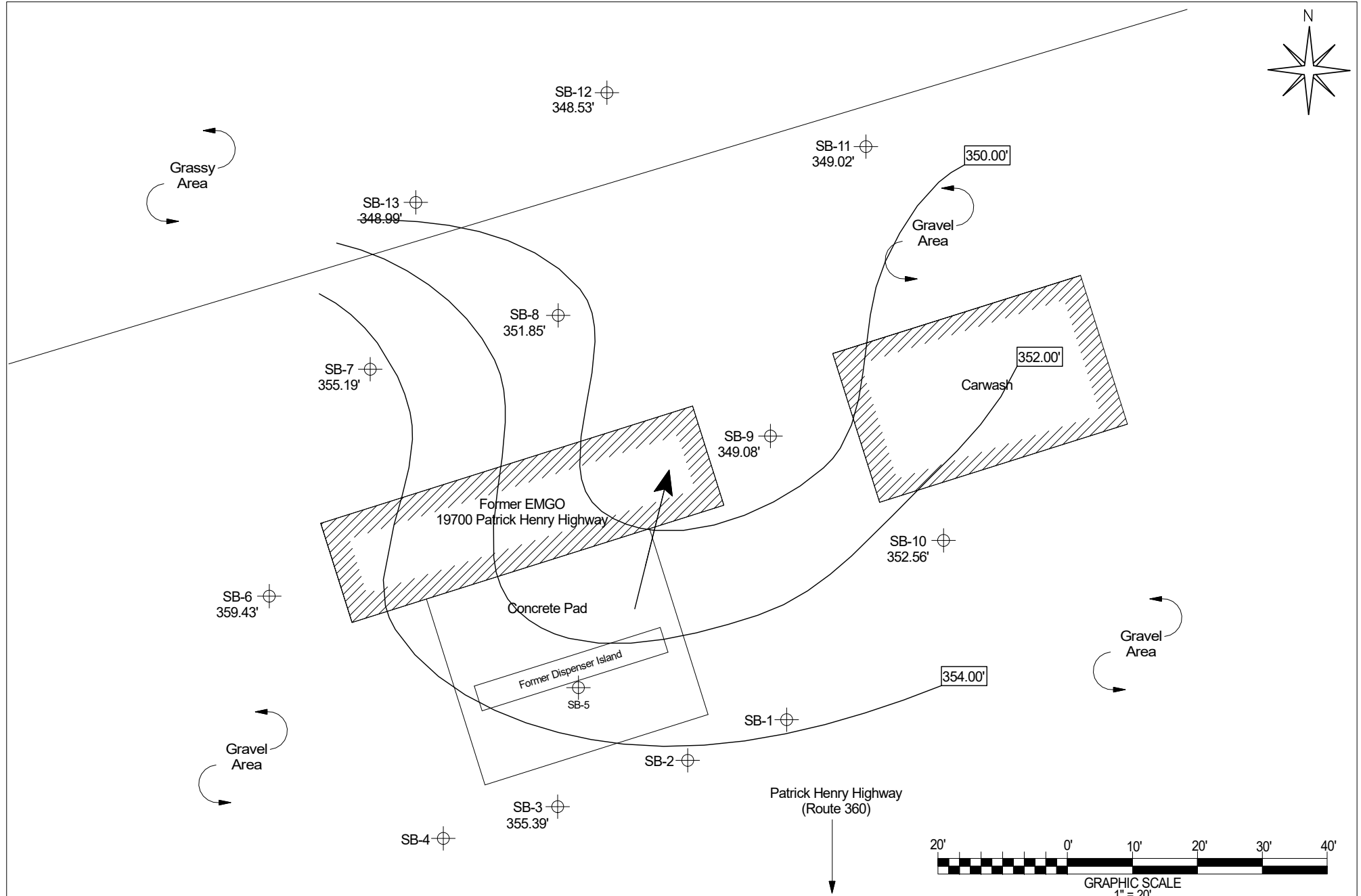
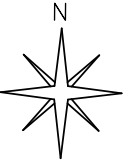
⊕ SB-1 Soil Boring Location



Phase
SITE
CHARACTERIZATION
REPORT
PC# 2023-4070

DRAWING TITLE
SITE PLAN
FORMER EMGO
19700 PARTRICK HENRY HIGHWAY
AMELIA COURTHOUSE, VIRGINIA

DRAWING NUMBER
FIGURE 2
DATE: November 2022
SCALE: 1" = 20'
PROJECT NO: REG22.19700
DRAWN BY: TJR

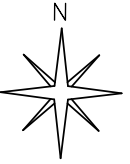


LEGEND

⊕ SB-1 Soil Boring Location



Phase	DRAWING TITLE	DRAWING NUMBER
SITE CHARACTERIZATION REPORT	GROUNDWATER GRADIENT MAP (11/7/2022) FORMER EMGO 19700 PARTRICK HENRY HIGHWAY AMELIA COURTHOUSE, VIRGINIA	FIGURE 3
PC# 2023-4070		DATE: November 2022
		SCALE: 1" = 20'
		PROJECT NO: REG22.19700
		DRAWN BY: TJR



Grassy Area

SB-13
GRO = ND
BTEX = ND

SB-12
Free Product
0.07' on 11/7/22
0.03' on 11/23/22

SB-11
GRO = ND
BTEX = ND

Gravel Area

SB-7
GRO = 0.089 mg/L
BTEX = 9.7 ug/L

SB-8
GRO = 93.3 mg/L
BTEX = 34,620 ug/L

Carwash

SB-9
GRO = 54.1 mg/L
BTEX = 20,947 ug/L

Former EMGO
19700 Patrick Henry Highway

Concrete Pad

Former Dispenser Island

SB-6
GRO = ND
BTEX = ND

SB-10
GRO = ND
BTEX = ND

Gravel Area

Gravel Area

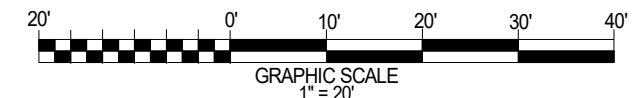
SB-4
GRO = 6.2 mg/L
BTEX = 510.3 ug/L

SB-3
GRO = 127 mg/L
BTEX = 51,570 ug/L

SB-1

SB-2

Patrick Henry Highway
(Route 360)



LEGEND

⊕ SB-1 Soil Boring Location

REG
Richmond Environmental Group
8306 JONQUIL TERRACE
RICHMOND, VA 23235

Phase	DRAWING TITLE	DRAWING NUMBER
SITE CHARACTERIZATION REPORT	DISSOLVED-PHASE CONCENTRATIONS FORMER EMGO 19700 PARTRICK HENRY HIGHWAY AMELIA COURTHOUSE, VIRGINIA	FIGURE 4
	DATE: November 2022	
	SCALE: 1" = 20'	
	PROJECT NO: REG22.19700	
	DRAWN BY: TJR	

Tables

Table 1
AST Assessment Soil Analytical Results
Former EMGO

Sample ID	Date	Sample Depth (feet)	TPH DRO ¹ (ppm)
AST-1	9/13/2022	Ground Surface	ND ²
AST-2	9/13/2022	1	ND

¹ TPH DRO method 8015C reported in parts per million (ppm).

² ND = Not detected above the laboratory detection limit.

Table 2
Floor Drain Soil Analytical Results
Former EMGO

Sample ID	Date	Sample Location	Methylene Chloride¹ (ppb)	1,2,4-Trimethyl- benzene (ppb)
FD-1	9/13/2022	Western Car Wash Bay	53.1	ND ²
FD-2	9/13/2022	Eastern Car Wash Bay	70.2	10.6

¹ VOCs method 8260D reported in parts per billion (ppb).

² ND = Not detected above the laboratory detection limit.

Table 3
UST Investigation Soil Analytical Results
Former EMGO
PC# 2023-4070

Sample ID	Date	Sample Depth (feet)	TPH GRO ¹ (ppm)
SB-1-4	9/12/2022	20	ND ²
SB-2-4	9/13/2022	20	ND
SB-3-2	9/13/2022	10	15,100
SB-4-4	9/13/2022	20	85.1
SB-5-4	9/13/2022	20	ND
SB-6-4	10/11/2022	20	ND
SB-7-5	10/11/2022	25	ND
SB-8-5	10/11/2022	25	328
SB-9-6	11/3/2022	30	ND
SB-10-5	11/3/2022	25	ND
SB-11-6	11/3/2022	30	ND
SB-12-6	11/3/2022	30	242
SB-13-6	11/3/2022	30	ND

¹ TPH GRO method 8015C reported in parts per million (ppm).

² ND = Not detected above the laboratory detection limit.

Table 4
Groundwater Analytical Data
Former EMGO
PC# 2023-4070

Sample ID	Date	MTBE (ug/L)¹	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Total BTEX (ug/L)	Naphthalene (ug/L)	TPH GRO (mg/L)²
SB-3	9/13/2022	266	2,770	7,410	1,180	5,740	17,100	387	67.6
	11/7/2022	736	15,200	26,200	1,730	8,440	51,570	440	127
SB-4	9/13/2022	2.4	37.9	198	47.4	227	510.3	37.6	6.2
SB-6	11/7/2022	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<0.08
SB-7	11/7/2022	<1.0	<1.0	5.0	<1.0	4.7	9.7	4.0	0.089
SB-8	11/7/2022	<200	4,420	20,500	1,690	8,010	34,620	602	93.3
SB-9	11/7/2022	<40.0	<40.0	397	3,650	16,900	20,947	1,330	54.1
SB-10	11/7/2022	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<0.08
SB-11	11/7/2022	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<0.08
SB-12	11/7/2022	Not Sampled due to the presence of free-phase petroleum							
SB-13	11/7/2022	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<0.08

¹ VOCs via method 8260D reported in micrograms per liter (ug/L).

² TPH GRO via method 8015C reported in milligrams per liter (mg/L).

Appendix A

VDEQ FOIA Response

Notification for Underground Storage Tanks (USTs)

Virginia DEQ Water Form 7530-2

(See reverse for mailing instructions)

Rev. (01/03)

STATE USE ONLY

ID Number

4016331

Date Received

10/10/06

Date Entered

10/10/06

Entered By

Comments

PART I: PURPOSE OF NOTIFICATION

✓ Check all that apply:

☐ New (not previously registered) facility

☐ Temporary closure

☐ Change in tank contents

☐ New tank(s) at previously registered facility

☒ Tank removal or closure

☐ New owner

☐ Change in tanks (e.g., upgrade)

☐ Piping removal or closure

☐ Change in owner address

☐ Change in piping (e.g., upgrade)

☐ Other (specify):

PART II: OWNERSHIP OF TANKS

A. Owner Name

Graham A. Emerson Eckels

B. Owner Address

19650 Maplewood Road

C. City, State, Zip

Amelia, Va. 23002

D. Name of Contact Person

Graham Eckels

E. Title of Contact Person

Owner

F. Phone Number

(804) 561-2903

Fax Number

(804) 561-4444

G. E-mail Address

BGAECKELS@AOL.COM

H. Name of Previous Owner

PART III: LOCATION OF TANKS

A. Facility Name

EM 60

B. Facility Street Address (P.O. Box not acceptable)

RT. 360 WEST

C. City, Zip

AMELIA 23002

D. County or Municipality where Facility is Located

AMELIA

E. Name of Contact Person

GRAHAM ECKELS

F. Title of Contact Person

OWNER

G. Phone Number

(804) 561-2903

Fax Number

()

H. E-mail Address

PART IV: TYPE OF OWNER

☐ Federal government

☐ Commercial

☐ State government

☒ Private

☐ Local government

PART V: TYPE OF FACILITY

☒ Retail gas station

☐ Petroleum distributor

☐ Local government

☐ Federal non-military

☐ Federal military

☐ State government

☐ Commercial (non-resale)

☐ Industrial

☐ Other

☐ Residence

☐ Farm

PART VI: FINANCIAL RESPONSIBILITY

The tank owner has met the financial responsibility requirements contained in 9 VAC 25-590-10 et seq. using the following methods/mechanisms

☐ Self insurance

☐ Insurance

☐ Letter of Credit

☐ Virginia Petroleum Storage Tank Fund

☐ Guarantee

☐ Surety Bond

☐ Trust Fund

PART VII: OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I understand that the owner of the underground storage tanks hereby registered is responsible for compliance with the requirements of Virginia Regulations 9 VAC 25-580-10 et seq. and federal regulation 40 CFR Part 280, among other requirements. I warrant and represent that I am the owner or that I have the authority to sign this certification on behalf of the owner. I understand that this notification form is sufficient evidence to establish ownership of tanks subject to 9 VAC 25-580-10 et seq.

GRAHAM A. EMERSON ECKELS

Name and Title (Type or Print)

Graham A. Eckels

Signature

10/10/06

Date

PART VIII: INSTALLER CERTIFICATION

I certify that the installation of this tank was performed in accordance with all federal, state and local installation requirements. I warrant and represent that I am the installer or that I have the authority to sign this certification on behalf of the installer.

Name and Title (Type or Print)

Signature

Date

Company Name

Address

Telephone Number

PART X: TANK CLOSURE, REMOVAL OR CHANGE IN SERVICE

Owner Tank Identification Number (assigned or used by owner)	1		2		3		4			
DEQ Tank Identification Number (assigned by DEQ)										
Tank and Piping Status	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closure in Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filled with Inert Material	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Describe Inert Material										
Temporary Closure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change in Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date of Installation (MM/DD/YYYY)	04/28/1972		04/28/1972		04/28/1972		04/28/1972			
Tank Capacity (Gallons)	4000		4000		4000		4000			
Substance Stored (if hazardous, include CERCLA name and/or CAS number)	Gasoline		Gasoline		Gasoline		Gasoline			
Material of Construction (v all that apply)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coated and Cathodically Protected/STI-P3®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impressed Current System Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Composite (Steel Clad with Fiberglass)/ACT 100®	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Lined Interior	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Polyethylene Tank Jacket	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Concrete	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Excavation Liner	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Asphalt Coated or Bare Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Containment		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Polyflexible Piping		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Galvanized Steel		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Other (specify)										
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date Last Used (MM/DD/YYYY)	1988		1988		1988		1988			
Date Closed (MM/DD/YYYY)	1988		1988		1988		1988			
Closure Assessment Completed (Please submit site map, soil sampling results, chain of custody for all samples, copy of building permit, and disposal manifest with this form).	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Evidence of a Leak Detected	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0049
APPROVAL EXPIRES 6-30-88

FOR
TANKS
IN
VA

RETURN
COMPLETED
FORM
TO

Russell P. Ellison, III, P.G.
Virginia Water Control Board
P.O. Box 11143
Richmond, VA 23230-1143

(804) 257-6685

I.D. Number

STATE USE ONLY

Date Received

MAY 08 1986

16331

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances; and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;

5. surface impoundments, pits, ponds, or lagoons;

6. storm water or waste water collection systems;

7. flow-through process tanks;

8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;

9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

GRAHAM A. EMERSON

Street Address

Rt. 1 Box 93

County

AMELIA

City

AMELIA Virginia ZIP Code 23002

Area Code

804 561-2903

Type of Owner (Mark all that apply)

☒ Current

☐ State or Local Gov't

☒ Private or Corporate

☐ Former

☐ Federal Gov't (GSA facility I.D. no.)

☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

EMGO

Street Address or State Road, as applicable

Rt. 1 Box 93 Route 360W.

County

AMELIA VA. ZIP Code 23002

City (nearest)

AMELIA

Indicate number of tanks at this location

4

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☒)

Job Title OWNER

Area Code

Phone Number

804-561-2903

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

GRAHAM A. EMERSON

Signature

Graham A. Emerson

Date Signed

4/28/86

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply <input checked="" type="checkbox"/>) Currently in Use <input checked="" type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)	14	14	14	14	
3. Estimated Total Capacity (Gallons)	4,000	4,000	4,000	4,000	
4. Material of Construction (Mark one <input checked="" type="checkbox"/>) Steel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify <u>UNDER WRITERS LABELED FOR UNDERGROUND USE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. External Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input checked="" type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply <input checked="" type="checkbox"/>) Bare Steel <input type="checkbox"/> Galvanized Steel <input checked="" type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input checked="" type="checkbox"/>) a. Empty <input type="checkbox"/> b. Petroleum <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input checked="" type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ c. Hazardous Substance <input type="checkbox"/> Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances d. Unknown <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) _____ b. Estimated quantity of substance remaining (gal.) _____ c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix B

Laboratory Certificates of Analysis and Chain-of-Custody Records

September 26, 2022

Todd Reyher
Richmond Environmental Group
8306 Jonquil Terrace
Richmond, VA 23235

RE: Project: Former EMGO REG22.19650
Pace Project No.: 92626003

Dear Todd Reyher:

Enclosed are the analytical results for sample(s) received by the laboratory on September 14, 2022. 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 - Charlotte

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

Sincerely,

Angela M. Baioni

Angela Baioni for
Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kincey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92626003001	SB-1-4	EPA 8015C	TEG	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003002	SB-2-4	EPA 8015C	TEG	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003003	SB-3-2	EPA 8015C	TEG	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003004	SB-4-4	EPA 8015C	TEG	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003005	SB-5-4	EPA 8015C	TEG	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003006	AST-1	EPA 8015C	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003007	AST-2	EPA 8015C	AP2	2	PASI-C
		SW-846	KDF	1	PASI-C
92626003008	FD-1	EPA 8260D	LMB	70	PASI-C
		SW-846	KDF	1	PASI-C
92626003009	FD-2	EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92626003010	SB-3	EPA 5030B/8015C	TEG	2	PASI-C
		EPA 8260D	CL	11	PASI-C
92626003011	SB-4	EPA 5030B/8015C	TEG	2	PASI-C
		EPA 8260D	CL	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-1-4 **Lab ID: 92626003001** Collected: 09/12/22 16:15 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics		Analytical Method: EPA 8015C Preparation Method: EPA 5030B Pace Analytical Services - Charlotte						
Gas Range Organics (C6-C10)	ND	mg/kg	8.3	1	09/16/22 10:25	09/16/22 17:43		
Surrogates								
4-Bromofluorobenzene (S)	96	%	66-130	1	09/16/22 10:25	09/16/22 17:43	460-00-4	
Percent Moisture		Analytical Method: SW-846 Pace Analytical Services - Charlotte						
Percent Moisture	16.6	%	0.10	1		09/19/22 14:05		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-2-4 **Lab ID: 92626003002** Collected: 09/13/22 08:35 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics		Analytical Method: EPA 8015C Preparation Method: EPA 5030B Pace Analytical Services - Charlotte						
Gas Range Organics (C6-C10)	ND	mg/kg	9.4	1	09/16/22 10:25	09/16/22 19:01		
Surrogates								
4-Bromofluorobenzene (S)	94	%	66-130	1	09/16/22 10:25	09/16/22 19:01	460-00-4	
Percent Moisture		Analytical Method: SW-846 Pace Analytical Services - Charlotte						
Percent Moisture	22.0	%	0.10	1		09/19/22 14:06		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-3-2 **Lab ID: 92626003003** Collected: 09/13/22 09:30 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics		Analytical Method: EPA 8015C Preparation Method: EPA 5030B Pace Analytical Services - Charlotte						
Gas Range Organics (C6-C10)	15100	mg/kg	344	40	09/20/22 12:21	09/21/22 00:53		
Surrogates								
4-Bromofluorobenzene (S)	123	%	66-130	40	09/20/22 12:21	09/21/22 00:53	460-00-4	
Percent Moisture		Analytical Method: SW-846 Pace Analytical Services - Charlotte						
Percent Moisture	17.6	%	0.10	1		09/19/22 14:06		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-4-4 **Lab ID: 92626003004** Collected: 09/13/22 10:15 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics		Analytical Method: EPA 8015C Preparation Method: EPA 5030B Pace Analytical Services - Charlotte						
Gas Range Organics (C6-C10)	85.1	mg/kg	11.4	1	09/16/22 10:25	09/16/22 18:09		
Surrogates								
4-Bromofluorobenzene (S)	100	%	66-130	1	09/16/22 10:25	09/16/22 18:09	460-00-4	
Percent Moisture		Analytical Method: SW-846 Pace Analytical Services - Charlotte						
Percent Moisture	31.4	%	0.10	1		09/19/22 14:06		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-5-4 **Lab ID: 92626003005** Collected: 09/13/22 11:45 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics		Analytical Method: EPA 8015C Preparation Method: EPA 5030B Pace Analytical Services - Charlotte						
Gas Range Organics (C6-C10)	ND	mg/kg	9.3	1	09/16/22 10:25	09/16/22 18:35		
Surrogates								
4-Bromofluorobenzene (S)	96	%	66-130	1	09/16/22 10:25	09/16/22 18:35	460-00-4	
Percent Moisture		Analytical Method: SW-846 Pace Analytical Services - Charlotte						
Percent Moisture	21.3	%	0.10	1		09/19/22 14:06		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: AST-1 **Lab ID:** 92626003006 Collected: 09/13/22 14:00 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel								
Analytical Method: EPA 8015C Preparation Method: EPA 3546								
Pace Analytical Services - Charlotte								
Diesel Range Organics(C10-C28)	ND	mg/kg	6.6	1	09/16/22 08:57	09/16/22 15:48		
Surrogates								
n-Pentacosane (S)	63	%	10-130	1	09/16/22 08:57	09/16/22 15:48	629-99-2	
Percent Moisture								
Analytical Method: SW-846								
Pace Analytical Services - Charlotte								
Percent Moisture	25.1	%	0.10	1		09/16/22 17:49		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: AST-2 **Lab ID: 92626003007** Collected: 09/13/22 14:05 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel								
Analytical Method: EPA 8015C Preparation Method: EPA 3546								
Pace Analytical Services - Charlotte								
Diesel Range Organics(C10-C28)	ND	mg/kg	6.7	1	09/16/22 08:57	09/16/22 15:48		
Surrogates								
n-Pentacosane (S)	67	%	10-130	1	09/16/22 08:57	09/16/22 15:48	629-99-2	
Percent Moisture								
Analytical Method: SW-846								
Pace Analytical Services - Charlotte								
Percent Moisture	25.3	%	0.10	1		09/16/22 17:49		N2

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: FD-1 **Lab ID: 92626003008** Collected: 09/13/22 14:45 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles		Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte						
Acetone	ND	ug/kg	146	1	09/23/22 00:20	09/23/22 16:38	67-64-1	
Benzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	71-43-2	
Bromobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	108-86-1	
Bromochloromethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	74-97-5	
Bromodichloromethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	75-27-4	
Bromoform	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	75-25-2	
Bromomethane	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	74-83-9	
2-Butanone (MEK)	ND	ug/kg	146	1	09/23/22 00:20	09/23/22 16:38	78-93-3	
n-Butylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	56-23-5	
Chlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	108-90-7	
Chloroethane	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	75-00-3	
Chloroform	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	67-66-3	
Chloromethane	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	96-12-8	
Dibromochloromethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	106-93-4	
Dibromomethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	75-71-8	IK
1,1-Dichloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	108-20-3	
Ethylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	87-68-3	
2-Hexanone	ND	ug/kg	72.9	1	09/23/22 00:20	09/23/22 16:38	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	99-87-6	
Methylene Chloride	53.1	ug/kg	29.2	1	09/23/22 00:20	09/23/22 16:38	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	72.9	1	09/23/22 00:20	09/23/22 16:38	108-10-1	

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: FD-1 **Lab ID: 92626003008** Collected: 09/13/22 14:45 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles		Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte						
Methyl-tert-butyl ether	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	1634-04-4	
Naphthalene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	91-20-3	
n-Propylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	103-65-1	
Styrene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	79-34-5	
Tetrachloroethene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	127-18-4	
Toluene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	79-00-5	
Trichloroethene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	108-67-8	
Vinyl acetate	ND	ug/kg	72.9	1	09/23/22 00:20	09/23/22 16:38	108-05-4	
Vinyl chloride	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	75-01-4	
Xylene (Total)	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	1330-20-7	
m&p-Xylene	ND	ug/kg	14.6	1	09/23/22 00:20	09/23/22 16:38	179601-23-1	
o-Xylene	ND	ug/kg	7.3	1	09/23/22 00:20	09/23/22 16:38	95-47-6	
Surrogates								
Toluene-d8 (S)	101	%	70-130	1	09/23/22 00:20	09/23/22 16:38	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130	1	09/23/22 00:20	09/23/22 16:38	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1	09/23/22 00:20	09/23/22 16:38	17060-07-0	

Percent Moisture

Analytical Method: SW-846

Pace Analytical Services - Charlotte

Percent Moisture	18.6	%	0.10	1		09/16/22 17:49		N2
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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: FD-2 **Lab ID: 92626003009** Collected: 09/13/22 15:00 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles		Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte						
Acetone	ND	ug/kg	179	1	09/23/22 00:20	09/23/22 16:57	67-64-1	
Benzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	71-43-2	
Bromobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	108-86-1	
Bromochloromethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	74-97-5	
Bromodichloromethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	75-27-4	
Bromoform	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	75-25-2	
Bromomethane	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	74-83-9	
2-Butanone (MEK)	ND	ug/kg	179	1	09/23/22 00:20	09/23/22 16:57	78-93-3	
n-Butylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	104-51-8	
sec-Butylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	135-98-8	
tert-Butylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	98-06-6	
Carbon tetrachloride	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	56-23-5	
Chlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	108-90-7	
Chloroethane	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	75-00-3	
Chloroform	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	67-66-3	
Chloromethane	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	74-87-3	
2-Chlorotoluene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	95-49-8	
4-Chlorotoluene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	96-12-8	
Dibromochloromethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	106-93-4	
Dibromomethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	75-71-8	
1,1-Dichloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	75-34-3	
1,2-Dichloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	107-06-2	
1,1-Dichloroethene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	156-60-5	
1,2-Dichloropropane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	78-87-5	
1,3-Dichloropropane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	142-28-9	
2,2-Dichloropropane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	594-20-7	
1,1-Dichloropropene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	10061-02-6	
Diisopropyl ether	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	108-20-3	
Ethylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	87-68-3	
2-Hexanone	ND	ug/kg	89.3	1	09/23/22 00:20	09/23/22 16:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	98-82-8	
p-Isopropyltoluene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	99-87-6	
Methylene Chloride	70.2	ug/kg	35.7	1	09/23/22 00:20	09/23/22 16:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	89.3	1	09/23/22 00:20	09/23/22 16:57	108-10-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: FD-2 **Lab ID: 92626003009** Collected: 09/13/22 15:00 Received: 09/14/22 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles		Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte						
Methyl-tert-butyl ether	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	1634-04-4	
Naphthalene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	91-20-3	
n-Propylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	103-65-1	
Styrene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	79-34-5	
Tetrachloroethene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	127-18-4	
Toluene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	79-00-5	
Trichloroethene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	79-01-6	
Trichlorofluoromethane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	96-18-4	
1,2,4-Trimethylbenzene	10.6	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	108-67-8	
Vinyl acetate	ND	ug/kg	89.3	1	09/23/22 00:20	09/23/22 16:57	108-05-4	
Vinyl chloride	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	75-01-4	
Xylene (Total)	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	1330-20-7	
m&p-Xylene	ND	ug/kg	17.9	1	09/23/22 00:20	09/23/22 16:57	179601-23-1	
o-Xylene	ND	ug/kg	8.9	1	09/23/22 00:20	09/23/22 16:57	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%	70-130	1	09/23/22 00:20	09/23/22 16:57	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130	1	09/23/22 00:20	09/23/22 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1	09/23/22 00:20	09/23/22 16:57	17060-07-0	

Percent Moisture

Analytical Method: SW-846

Pace Analytical Services - Charlotte

Percent Moisture	28.6	%	0.10	1		09/16/22 17:49		N2
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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-3		Lab ID: 92626003010		Collected: 09/13/22 13:15		Received: 09/14/22 13:40		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
Gasoline Range Organics		Analytical Method: EPA 5030B/8015C Pace Analytical Services - Charlotte							
Gas Range Organics (C6-C10)	67.6	mg/L	1.6	20		09/19/22 19:11		D3	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130	20		09/19/22 19:11	460-00-4		
8260D MSV Low Level		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Benzene	2770	ug/L	50.0	50		09/19/22 22:33	71-43-2		
Ethylbenzene	1180	ug/L	50.0	50		09/19/22 22:33	100-41-4		
Methyl-tert-butyl ether	266	ug/L	50.0	50		09/19/22 22:33	1634-04-4		
Naphthalene	387	ug/L	50.0	50		09/19/22 22:33	91-20-3		
Toluene	7410	ug/L	50.0	50		09/19/22 22:33	108-88-3		
Xylene (Total)	5740	ug/L	50.0	50		09/19/22 22:33	1330-20-7		
m&p-Xylene	4070	ug/L	100	50		09/19/22 22:33	179601-23-1		
o-Xylene	1660	ug/L	50.0	50		09/19/22 22:33	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130	50		09/19/22 22:33	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	70-130	50		09/19/22 22:33	17060-07-0		
Toluene-d8 (S)	97	%	70-130	50		09/19/22 22:33	2037-26-5		

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ANALYTICAL RESULTS

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Sample: SB-4		Lab ID: 92626003011		Collected: 09/13/22 13:40		Received: 09/14/22 13:40		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
Gasoline Range Organics		Analytical Method: EPA 5030B/8015C Pace Analytical Services - Charlotte							
Gas Range Organics (C6-C10)	6.2	mg/L	0.080	1		09/16/22 18:05			
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130	1		09/16/22 18:05	460-00-4		
8260D MSV Low Level		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Benzene	37.9	ug/L	2.0	2		09/23/22 12:46	71-43-2		
Ethylbenzene	47.4	ug/L	2.0	2		09/23/22 12:46	100-41-4		
Methyl-tert-butyl ether	2.4	ug/L	2.0	2		09/23/22 12:46	1634-04-4		
Naphthalene	37.6	ug/L	2.0	2		09/23/22 12:46	91-20-3		
Toluene	198	ug/L	2.0	2		09/23/22 12:46	108-88-3		
Xylene (Total)	227	ug/L	2.0	2		09/23/22 12:46	1330-20-7		
m&p-Xylene	159	ug/L	4.0	2		09/23/22 12:46	179601-23-1		
o-Xylene	67.6	ug/L	2.0	2		09/23/22 12:46	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130	2		09/23/22 12:46	460-00-4		
1,2-Dichloroethane-d4 (S)	91	%	70-130	2		09/23/22 12:46	17060-07-0		
Toluene-d8 (S)	99	%	70-130	2		09/23/22 12:46	2037-26-5		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch:	723783	Analysis Method:	EPA 8015C
QC Batch Method:	EPA 5030B	Analysis Description:	Gasoline Range Organics
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003001, 92626003002, 92626003004, 92626003005

METHOD BLANK: 3771281 Matrix: Solid
Associated Lab Samples: 92626003001, 92626003002, 92626003004, 92626003005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	ND	6.0	09/16/22 13:51	
4-Bromofluorobenzene (S)	%	95	66-130	09/16/22 13:51	

LABORATORY CONTROL SAMPLE: 3771282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	49.9	52.1	104	70-130	
4-Bromofluorobenzene (S)	%			99	66-130	

MATRIX SPIKE SAMPLE: 3771284

Parameter	Units	92625731015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	ND	74.3	80.6	107	65-146	
4-Bromofluorobenzene (S)	%				100	66-130	

SAMPLE DUPLICATE: 3771283

Parameter	Units	92625731014 Result	Dup Result	RPD	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	ND	ND		
4-Bromofluorobenzene (S)	%	97	96		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch:	724419	Analysis Method:	EPA 8015C
QC Batch Method:	EPA 5030B	Analysis Description:	Gasoline Range Organics
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003003

METHOD BLANK: 3774329 Matrix: Solid

Associated Lab Samples: 92626003003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	ND	6.0	09/20/22 15:22	
4-Bromofluorobenzene (S)	%	99	66-130	09/20/22 15:22	

LABORATORY CONTROL SAMPLE: 3774330

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/kg	50	52.0	104	70-130	
4-Bromofluorobenzene (S)	%			99	66-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3774331 3774332

Parameter	Units	92626101003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gas Range Organics (C6-C10)	mg/kg	ND	56.7	56.7	72.5	61.0	126	106	65-146	17	
4-Bromofluorobenzene (S)	%						100	101	66-130		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch: 723821

Analysis Method: EPA 5030B/8015C

QC Batch Method: EPA 5030B/8015C

Analysis Description: Gasoline Range Organics

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003011

METHOD BLANK: 3771588

Matrix: Water

Associated Lab Samples: 92626003011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gas Range Organics (C6-C10)	mg/L	ND	0.080	09/16/22 13:53	
4-Bromofluorobenzene (S)	%	83	70-130	09/16/22 13:53	

LABORATORY CONTROL SAMPLE: 3771589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/L	1	1.0	103	70-130	
4-Bromofluorobenzene (S)	%			89	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3771590 3771591

Parameter	Units	92625866027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gas Range Organics (C6-C10)	mg/L	0.036J	1	1	1.0	1.0	101	98	63-130	3	
4-Bromofluorobenzene (S)	%						89	89	70-130		

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch:	724184	Analysis Method:	EPA 5030B/8015C
QC Batch Method:	EPA 5030B/8015C	Analysis Description:	Gasoline Range Organics
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92626003010		

METHOD BLANK: 3773321

Matrix: Water

Associated Lab Samples: 92626003010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gas Range Organics (C6-C10)	mg/L	ND	0.080	09/19/22 14:58	
4-Bromofluorobenzene (S)	%	84	70-130	09/19/22 14:58	

LABORATORY CONTROL SAMPLE: 3773322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/L	1	1.0	102	70-130	
4-Bromofluorobenzene (S)	%			88	70-130	

MATRIX SPIKE SAMPLE: 3773324

Parameter	Units	92625752001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Gas Range Organics (C6-C10)	mg/L	ND	1	1.0	96	63-130	
4-Bromofluorobenzene (S)	%				89	70-130	

SAMPLE DUPLICATE: 3773323

Parameter	Units	92626287001 Result	Dup Result	RPD	Qualifiers
Gas Range Organics (C6-C10)	mg/L	1.8	1.8	1	
4-Bromofluorobenzene (S)	%	86	85		

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch: 725209

Analysis Method: EPA 8260D

QC Batch Method: EPA 5035A/5030B

Analysis Description: 8260D 5035A 5030B

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003008, 92626003009

METHOD BLANK: 3778495

Matrix: Solid

Associated Lab Samples: 92626003008, 92626003009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,1,1-Trichloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,1,2-Trichloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,1-Dichloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,1-Dichloroethene	ug/kg	ND	5.0	09/23/22 16:01	
1,1-Dichloropropene	ug/kg	ND	5.0	09/23/22 16:01	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,2,3-Trichloropropane	ug/kg	ND	5.0	09/23/22 16:01	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	09/23/22 16:01	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	09/23/22 16:01	
1,2-Dichlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,2-Dichloroethane	ug/kg	ND	5.0	09/23/22 16:01	
1,2-Dichloropropane	ug/kg	ND	5.0	09/23/22 16:01	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,3-Dichlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
1,3-Dichloropropane	ug/kg	ND	5.0	09/23/22 16:01	
1,4-Dichlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
2,2-Dichloropropane	ug/kg	ND	5.0	09/23/22 16:01	
2-Butanone (MEK)	ug/kg	ND	100	09/23/22 16:01	
2-Chlorotoluene	ug/kg	ND	5.0	09/23/22 16:01	
2-Hexanone	ug/kg	ND	50.0	09/23/22 16:01	
4-Chlorotoluene	ug/kg	ND	5.0	09/23/22 16:01	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.0	09/23/22 16:01	
Acetone	ug/kg	ND	100	09/23/22 16:01	
Benzene	ug/kg	ND	5.0	09/23/22 16:01	
Bromobenzene	ug/kg	ND	5.0	09/23/22 16:01	
Bromochloromethane	ug/kg	ND	5.0	09/23/22 16:01	
Bromodichloromethane	ug/kg	ND	5.0	09/23/22 16:01	
Bromoform	ug/kg	ND	5.0	09/23/22 16:01	
Bromomethane	ug/kg	ND	10.0	09/23/22 16:01	
Carbon tetrachloride	ug/kg	ND	5.0	09/23/22 16:01	
Chlorobenzene	ug/kg	ND	5.0	09/23/22 16:01	
Chloroethane	ug/kg	ND	10.0	09/23/22 16:01	
Chloroform	ug/kg	ND	5.0	09/23/22 16:01	
Chloromethane	ug/kg	ND	10.0	09/23/22 16:01	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	09/23/22 16:01	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	09/23/22 16:01	

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

METHOD BLANK: 3778495

Matrix: Solid

Associated Lab Samples: 92626003008, 92626003009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	09/23/22 16:01	
Dibromomethane	ug/kg	ND	5.0	09/23/22 16:01	
Dichlorodifluoromethane	ug/kg	ND	10.0	09/23/22 16:01	IK
Diisopropyl ether	ug/kg	ND	5.0	09/23/22 16:01	
Ethylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
Hexachloro-1,3-butadiene	ug/kg	ND	10.0	09/23/22 16:01	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	09/23/22 16:01	
m&p-Xylene	ug/kg	ND	10.0	09/23/22 16:01	
Methyl-tert-butyl ether	ug/kg	ND	5.0	09/23/22 16:01	
Methylene Chloride	ug/kg	ND	20.0	09/23/22 16:01	
n-Butylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
n-Propylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
Naphthalene	ug/kg	ND	5.0	09/23/22 16:01	
o-Xylene	ug/kg	ND	5.0	09/23/22 16:01	
p-Isopropyltoluene	ug/kg	ND	5.0	09/23/22 16:01	
sec-Butylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
Styrene	ug/kg	ND	5.0	09/23/22 16:01	
tert-Butylbenzene	ug/kg	ND	5.0	09/23/22 16:01	
Tetrachloroethene	ug/kg	ND	5.0	09/23/22 16:01	
Toluene	ug/kg	ND	5.0	09/23/22 16:01	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	09/23/22 16:01	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	09/23/22 16:01	
Trichloroethene	ug/kg	ND	5.0	09/23/22 16:01	
Trichlorofluoromethane	ug/kg	ND	5.0	09/23/22 16:01	
Vinyl acetate	ug/kg	ND	50.0	09/23/22 16:01	
Vinyl chloride	ug/kg	ND	10.0	09/23/22 16:01	
Xylene (Total)	ug/kg	ND	10.0	09/23/22 16:01	
1,2-Dichloroethane-d4 (S)	%	94	70-130	09/23/22 16:01	
4-Bromofluorobenzene (S)	%	100	70-130	09/23/22 16:01	
Toluene-d8 (S)	%	98	70-130	09/23/22 16:01	

LABORATORY CONTROL SAMPLE: 3778496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	1250	1310	105	70-130	
1,1,1-Trichloroethane	ug/kg	1250	1320	105	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	1250	1110	89	70-130	
1,1,2-Trichloroethane	ug/kg	1250	1250	100	70-130	
1,1-Dichloroethane	ug/kg	1250	1290	103	70-130	
1,1-Dichloroethene	ug/kg	1250	1420	114	70-130	
1,1-Dichloropropene	ug/kg	1250	1360	109	70-130	
1,2,3-Trichlorobenzene	ug/kg	1250	1140	91	70-130	
1,2,3-Trichloropropane	ug/kg	1250	1080	87	70-130	
1,2,4-Trichlorobenzene	ug/kg	1250	1280	103	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

LABORATORY CONTROL SAMPLE: 3778496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1250	1310	105	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	1250	1060	85	67-130	
1,2-Dibromoethane (EDB)	ug/kg	1250	1200	96	70-130	
1,2-Dichlorobenzene	ug/kg	1250	1300	104	70-130	
1,2-Dichloroethane	ug/kg	1250	1170	93	70-130	
1,2-Dichloropropane	ug/kg	1250	1290	103	70-130	
1,3,5-Trimethylbenzene	ug/kg	1250	1340	107	70-130	
1,3-Dichlorobenzene	ug/kg	1250	1270	102	70-130	
1,3-Dichloropropane	ug/kg	1250	1180	95	70-130	
1,4-Dichlorobenzene	ug/kg	1250	1300	104	70-130	
2,2-Dichloropropane	ug/kg	1250	1160	93	67-130	
2-Butanone (MEK)	ug/kg	2500	2020	81	66-130	
2-Chlorotoluene	ug/kg	1250	1290	103	70-130	
2-Hexanone	ug/kg	2500	2140	85	70-130	
4-Chlorotoluene	ug/kg	1250	1270	102	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	2500	2240	89	70-130	
Acetone	ug/kg	2500	2180	87	67-130	
Benzene	ug/kg	1250	1270	102	70-130	
Bromobenzene	ug/kg	1250	1290	103	70-130	
Bromochloromethane	ug/kg	1250	1280	103	70-130	
Bromodichloromethane	ug/kg	1250	1330	106	70-130	
Bromoform	ug/kg	1250	1240	99	70-130	
Bromomethane	ug/kg	1250	1340	107	53-175	
Carbon tetrachloride	ug/kg	1250	1440	115	70-130	
Chlorobenzene	ug/kg	1250	1300	104	70-130	
Chloroethane	ug/kg	1250	1450	116	70-135	
Chloroform	ug/kg	1250	1270	101	70-130	
Chloromethane	ug/kg	1250	1360	109	64-130	
cis-1,2-Dichloroethene	ug/kg	1250	1290	104	70-130	
cis-1,3-Dichloropropene	ug/kg	1250	1290	103	70-130	
Dibromochloromethane	ug/kg	1250	1300	104	70-130	
Dibromomethane	ug/kg	1250	1290	103	70-130	
Dichlorodifluoromethane	ug/kg	1250	1420	114	63-145 IK	
Diisopropyl ether	ug/kg	1250	1250	100	68-130	
Ethylbenzene	ug/kg	1250	1220	98	70-130	
Hexachloro-1,3-butadiene	ug/kg	1250	1370	109	70-130	
Isopropylbenzene (Cumene)	ug/kg	1250	1290	103	70-130	
m&p-Xylene	ug/kg	2500	2610	104	70-130	
Methyl-tert-butyl ether	ug/kg	1250	1190	95	70-130	
Methylene Chloride	ug/kg	1250	1150	92	67-130	
n-Butylbenzene	ug/kg	1250	1340	107	70-130	
n-Propylbenzene	ug/kg	1250	1290	103	70-130	
Naphthalene	ug/kg	1250	1130	91	70-130	
o-Xylene	ug/kg	1250	1300	104	70-130	
p-Isopropyltoluene	ug/kg	1250	1380	110	70-130	
sec-Butylbenzene	ug/kg	1250	1320	105	70-130	
Styrene	ug/kg	1250	1330	106	70-130	

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

LABORATORY CONTROL SAMPLE: 3778496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/kg	1250	1350	108	64-130	
Tetrachloroethene	ug/kg	1250	1270	102	70-130	
Toluene	ug/kg	1250	1310	105	70-130	
trans-1,2-Dichloroethene	ug/kg	1250	1350	108	70-130	
trans-1,3-Dichloropropene	ug/kg	1250	1290	103	70-130	
Trichloroethene	ug/kg	1250	1370	110	70-130	
Trichlorofluoromethane	ug/kg	1250	1410	113	70-130	
Vinyl acetate	ug/kg	2500	2490	100	70-134	
Vinyl chloride	ug/kg	1250	1320	106	68-130	
Xylene (Total)	ug/kg	3750	3910	104	70-130	
1,2-Dichloroethane-d4 (S)	%			87	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3779453 3779454

Parameter	Units	92626198004		MS		MSD		MS		MSD		MS		MSD		% Rec		Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	% Rec	% Rec			
1,1,1,2-Tetrachloroethane	ug/kg	ND	1230	1230	1240	1390	101	113	58-140	12										
1,1,1-Trichloroethane	ug/kg	ND	1230	1230	1300	1410	106	115	58-144	8										
1,1,2,2-Tetrachloroethane	ug/kg	ND	1230	1230	973	1070	79	87	52-139	9										
1,1,2-Trichloroethane	ug/kg	ND	1230	1230	1130	1250	92	102	56-140	10										
1,1-Dichloroethane	ug/kg	ND	1230	1230	1220	1350	99	110	58-145	10										
1,1-Dichloroethene	ug/kg	ND	1230	1230	1340	1460	109	119	57-158	9										
1,1-Dichloropropene	ug/kg	ND	1230	1230	1370	1500	111	123	58-151	10										
1,2,3-Trichlorobenzene	ug/kg	ND	1230	1230	559	564	46	46	48-149	1 M1										
1,2,3-Trichloropropane	ug/kg	ND	1230	1230	928	1040	76	84	54-132	11										
1,2,4-Trichlorobenzene	ug/kg	ND	1230	1230	1090	1140	89	93	51-151	5										
1,2,4-Trimethylbenzene	ug/kg	12.4	1230	1230	1280	1390	104	113	38-170	8										
1,2-Dibromo-3-chloropropane	ug/kg	ND	1230	1230	669	746	54	61	44-134	11										
1,2-Dibromoethane (EDB)	ug/kg	ND	1230	1230	1030	1170	84	95	60-138	13										
1,2-Dichlorobenzene	ug/kg	ND	1230	1230	1230	1360	100	111	59-147	10										
1,2-Dichloroethane	ug/kg	ND	1230	1230	1080	1200	88	98	57-139	10										
1,2-Dichloropropane	ug/kg	ND	1230	1230	1250	1380	102	112	62-145	10										
1,3,5-Trimethylbenzene	ug/kg	ND	1230	1230	1310	1410	107	115	47-159	8										
1,3-Dichlorobenzene	ug/kg	ND	1230	1230	1260	1370	103	112	58-144	8										
1,3-Dichloropropane	ug/kg	ND	1230	1230	1070	1190	87	97	60-142	11										
1,4-Dichlorobenzene	ug/kg	ND	1230	1230	1220	1330	100	108	57-143	8										
2,2-Dichloropropane	ug/kg	ND	1230	1230	1160	1320	94	107	37-144	13										
2-Butanone (MEK)	ug/kg	ND	2460	2460	1490	1610	61	66	28-146	8										
2-Chlorotoluene	ug/kg	ND	1230	1230	1240	1350	101	110	55-158	8										
2-Hexanone	ug/kg	ND	2460	2460	1580	1780	65	73	44-141	12										
4-Chlorotoluene	ug/kg	ND	1230	1230	1230	1330	100	109	55-146	8										
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	2460	2460	1710	1920	70	78	50-138	11										
Acetone	ug/kg	ND	2460	2460	1370	1480	56	60	20-136	8										

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

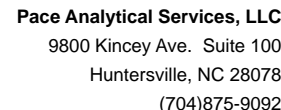
Pace Project No.: 92626003

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3779453 3779454											
Parameter	Units	92626198004		MS	MSD	MSD		MS	MSD	% Rec	Qual
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	
Benzene	ug/kg	ND	1230	1230	1230	1250	1380	102	113	60-145	10
Bromobenzene	ug/kg	ND	1230	1230	1230	1190	1320	97	108	59-145	11
Bromochloromethane	ug/kg	ND	1230	1230	1230	1160	1250	94	102	57-143	8
Bromodichloromethane	ug/kg	ND	1230	1230	1230	1220	1350	99	110	53-133	11
Bromoform	ug/kg	ND	1230	1230	1230	998	1110	81	91	48-133	11
Bromomethane	ug/kg	ND	1230	1230	1230	429	476	34	38	10-167	10
Carbon tetrachloride	ug/kg	ND	1230	1230	1230	1300	1420	106	116	57-147	9
Chlorobenzene	ug/kg	7.1J	1230	1230	1230	1300	1430	105	116	61-144	10
Chloroethane	ug/kg	ND	1230	1230	1230	262	282	21	23	10-153	8
Chloroform	ug/kg	ND	1230	1230	1230	1200	1310	98	107	58-141	9
Chloromethane	ug/kg	26.2	1230	1230	1230	1420	1540	114	123	54-165	8
cis-1,2-Dichloroethene	ug/kg	ND	1230	1230	1230	1240	1370	101	112	59-144	11
cis-1,3-Dichloropropene	ug/kg	ND	1230	1230	1230	1240	1370	101	112	56-137	10
Dibromochloromethane	ug/kg	ND	1230	1230	1230	1120	1260	91	103	53-139	12
Dibromomethane	ug/kg	ND	1230	1230	1230	1100	1200	89	98	60-136	9
Dichlorodifluoromethane	ug/kg	ND	1230	1230	1230	1590	1720	129	140	49-177	8 IK
Diisopropyl ether	ug/kg	ND	1230	1230	1230	1160	1290	95	105	53-136	10
Ethylbenzene	ug/kg	11.4J	1230	1230	1230	1240	1360	100	110	53-150	10
Hexachloro-1,3-butadiene	ug/kg	ND	1230	1230	1230	1630	1700	132	137	42-186	4
Isopropylbenzene (Cumene)	ug/kg	ND	1230	1230	1230	1340	1470	109	120	62-154	9
m&p-Xylene	ug/kg	30.5	2460	2460	2460	2610	2890	105	117	49-156	10
Methyl-tert-butyl ether	ug/kg	ND	1230	1230	1230	1040	1130	85	92	54-133	8
Methylene Chloride	ug/kg	ND	1230	1230	1230	1140	1260	93	102	50-153	10
n-Butylbenzene	ug/kg	ND	1230	1230	1230	1430	1520	117	124	44-174	6
n-Propylbenzene	ug/kg	ND	1230	1230	1230	1280	1400	105	114	52-157	8
Naphthalene	ug/kg	ND	1230	1230	1230	538	522	44	43	37-150	3
o-Xylene	ug/kg	18.1	1230	1230	1230	1300	1450	104	117	54-150	11
p-Isopropyltoluene	ug/kg	ND	1230	1230	1230	1420	1530	116	125	50-164	7
sec-Butylbenzene	ug/kg	ND	1230	1230	1230	1390	1490	113	121	58-161	7
Styrene	ug/kg	ND	1230	1230	1230	1310	1450	107	118	60-148	10
tert-Butylbenzene	ug/kg	ND	1230	1230	1230	1310	1490	107	122	44-151	13
Tetrachloroethene	ug/kg	ND	1230	1230	1230	1200	1300	98	106	53-151	8
Toluene	ug/kg	20.6	1230	1230	1230	1300	1440	104	115	52-148	10
trans-1,2-Dichloroethene	ug/kg	ND	1230	1230	1230	1260	1360	102	111	60-148	8
trans-1,3-Dichloropropene	ug/kg	ND	1230	1230	1230	1190	1310	97	107	55-133	10
Trichloroethene	ug/kg	ND	1230	1230	1230	1340	1500	109	122	60-148	11
Trichlorofluoromethane	ug/kg	ND	1230	1230	1230	286	316	23	26	10-154	10
Vinyl acetate	ug/kg	ND	2460	2460	2460	1940	2150	79	88	50-149	10
Vinyl chloride	ug/kg	ND	1230	1230	1230	1400	1540	114	125	57-157	9
Xylene (Total)	ug/kg	48.6	3690	3690	3690	3910	4340	105	117	52-153	11
1,2-Dichloroethane-d4 (S)	%							93	89	70-130	
4-Bromofluorobenzene (S)	%							103	103	70-130	
Toluene-d8 (S)	%							100	101	70-130	

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Project: Former EMGO REG22.19650
Pace Project No.: 92626003

Associated Lab Samples: 92626003010

Matrix: Water

Associated Lab Samples: 92626003010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/19/22 13:13	
Ethylbenzene	ug/L	ND	1.0	09/19/22 13:13	
m&p-Xylene	ug/L	ND	2.0	09/19/22 13:13	
Methyl-tert-butyl ether	ug/L	ND	1.0	09/19/22 13:13	
Naphthalene	ug/L	ND	1.0	09/19/22 13:13	
o-Xylene	ug/L	ND	1.0	09/19/22 13:13	
Toluene	ug/L	ND	1.0	09/19/22 13:13	
Xylene (Total)	ug/L	ND	1.0	09/19/22 13:13	
1,2-Dichloroethane-d4 (S)	%	100	70-130	09/19/22 13:13	
4-Bromofluorobenzene (S)	%	98	70-130	09/19/22 13:13	
Toluene-d8 (S)	%	99	70-130	09/19/22 13:13	

LABORATORY CONTROL SAMPLE: 3770970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	44.4	89	70-130	
Ethylbenzene	ug/L	50	47.5	95	70-130	
m&p-Xylene	ug/L	100	95.3	95	70-130	
Methyl-tert-butyl ether	ug/L	50	44.2	88	70-130	
Naphthalene	ug/L	50	45.2	90	70-130	
o-Xylene	ug/L	50	48.0	96	70-130	
Toluene	ug/L	50	44.9	90	70-130	
Xylene (Total)	ug/L	150	143	96	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3770971	3770972
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Parameter	92626021012		MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.								
Benzene	ug/L	ND	20	20	21.0	22.4	103	110	70-142	6		
Ethylbenzene	ug/L	ND	20	20	20.9	21.2	105	106	70-143	1		
m&p-Xylene	ug/L	ND	40	40	41.4	41.9	104	105	70-144	1		
Methyl-tert-butyl ether	ug/L	ND	20	20	20.7	20.8	104	104	65-143	0		
Naphthalene	ug/L	4.7	20	20	27.4	26.9	113	111	67-147	2		
o-Xylene	ug/L	ND	20	20	20.6	21.5	100	105	70-145	5		

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770971 3770972											
Parameter	Units	92626021012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene	ug/L	ND	20	20	21.0	21.2	105	106	70-142	1	
Xylene (Total)	ug/L	ND	60	60	62.0	63.5	103	106	70-143	2	
1,2-Dichloroethane-d4 (S)	%						95	96	70-130		
4-Bromofluorobenzene (S)	%						96	96	70-130		
Toluene-d8 (S)	%						97	98	70-130		

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch:	725371	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260D MSV Low Level
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003011

METHOD BLANK: 3779095 Matrix: Water

Associated Lab Samples: 92626003011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/23/22 11:33	
Ethylbenzene	ug/L	ND	1.0	09/23/22 11:33	
m&p-Xylene	ug/L	ND	2.0	09/23/22 11:33	
Methyl-tert-butyl ether	ug/L	ND	1.0	09/23/22 11:33	
Naphthalene	ug/L	ND	1.0	09/23/22 11:33	
o-Xylene	ug/L	ND	1.0	09/23/22 11:33	
Toluene	ug/L	ND	1.0	09/23/22 11:33	
Xylene (Total)	ug/L	ND	1.0	09/23/22 11:33	
1,2-Dichloroethane-d4 (S)	%	92	70-130	09/23/22 11:33	
4-Bromofluorobenzene (S)	%	93	70-130	09/23/22 11:33	
Toluene-d8 (S)	%	98	70-130	09/23/22 11:33	

LABORATORY CONTROL SAMPLE: 3779096

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	46.9	94	70-130	
Ethylbenzene	ug/L	50	48.9	98	70-130	
m&p-Xylene	ug/L	100	97.1	97	70-130	
Methyl-tert-butyl ether	ug/L	50	45.8	92	70-130	
Naphthalene	ug/L	50	50.6	101	70-130	
o-Xylene	ug/L	50	48.1	96	70-130	
Toluene	ug/L	50	47.5	95	70-130	
Xylene (Total)	ug/L	150	145	97	70-130	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			95	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3779097 3779098

Parameter	92626127003		MS		MSD		MS		MSD		MS		MSD		% Rec		RPD		Qual
	Units	Result	Conc.	Spike	Conc.	Spike	Result	Conc.	Result	Conc.	% Rec	Conc.	Result	Conc.	% Rec	Limits			
Benzene	ug/L	ND	400	400	456	464	114	116	70-142	2									
Ethylbenzene	ug/L	ND	400	400	449	474	112	119	70-143	5									
m&p-Xylene	ug/L	ND	800	800	876	942	109	118	70-144	7									
Methyl-tert-butyl ether	ug/L	ND	400	400	431	452	108	113	65-143	5									
Naphthalene	ug/L	ND	400	400	398	432	96	105	67-147	8									
o-Xylene	ug/L	ND	400	400	437	457	109	114	70-145	5									

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3779097 3779098											
Parameter	Units	92626127003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene	ug/L	ND	400	400	457	467	114	117	70-142	2	
Xylene (Total)	ug/L	ND	1200	1200	1310	1400	109	117	70-143	6	
1,2-Dichloroethane-d4 (S)	%						93	91	70-130		
4-Bromofluorobenzene (S)	%						93	94	70-130		
Toluene-d8 (S)	%						97	95	70-130		

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch:	723703	Analysis Method:	EPA 8015C
QC Batch Method:	EPA 3546	Analysis Description:	8015 Solid GCSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003006, 92626003007

METHOD BLANK: 3771001 Matrix: Solid

Associated Lab Samples: 92626003006, 92626003007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	5.0	09/16/22 13:28	
n-Pentacosane (S)	%	77	10-130	09/16/22 13:28	

LABORATORY CONTROL SAMPLE: 3771002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	67.3	54.5	81	44-130	
n-Pentacosane (S)	%			80	10-130	

MATRIX SPIKE SAMPLE: 3771003

Parameter	Units	92625918001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	1030	75.1	1220	254	10-130	M1
n-Pentacosane (S)	%				70	10-130	

SAMPLE DUPLICATE: 3771004

Parameter	Units	92625931001 Result	Dup Result	RPD	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	29200	25500	13	
n-Pentacosane (S)	%	0	0	S4	

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch: 723909

Analysis Method: SW-846

QC Batch Method: SW-846

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003006, 92626003007, 92626003008, 92626003009

SAMPLE DUPLICATE: 3772204

Parameter	Units	92624992001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.8	17.1	2	N2

SAMPLE DUPLICATE: 3772205

Parameter	Units	92626063009 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	18.2	18.5	2	N2

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QUALITY CONTROL DATA

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

QC Batch: 724193

Analysis Method: SW-846

QC Batch Method: SW-846

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92626003001, 92626003002, 92626003003, 92626003004, 92626003005

SAMPLE DUPLICATE: 3773370

Parameter	Units	92626003001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.6	16.0	4	N2

SAMPLE DUPLICATE: 3773371

Parameter	Units	92626270018 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	10.7	10.9	2	N2

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QUALIFIERS

Project: Former EMGO REG22.19650
Pace Project No.: 92626003

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 adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.
A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EMGO REG22.19650

Pace Project No.: 92626003

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92626003006	AST-1	EPA 3546	723703	EPA 8015C	723842
92626003007	AST-2	EPA 3546	723703	EPA 8015C	723842
92626003001	SB-1-4	EPA 5030B	723783	EPA 8015C	723816
92626003002	SB-2-4	EPA 5030B	723783	EPA 8015C	723816
92626003003	SB-3-2	EPA 5030B	724419	EPA 8015C	724487
92626003004	SB-4-4	EPA 5030B	723783	EPA 8015C	723816
92626003005	SB-5-4	EPA 5030B	723783	EPA 8015C	723816
92626003010	SB-3	EPA 5030B/8015C	724184		
92626003011	SB-4	EPA 5030B/8015C	723821		
92626003008	FD-1	EPA 5035A/5030B	725209	EPA 8260D	725280
92626003009	FD-2	EPA 5035A/5030B	725209	EPA 8260D	725280
92626003010	SB-3	EPA 8260D	723693		
92626003011	SB-4	EPA 8260D	725371		
92626003001	SB-1-4	SW-846	724193		
92626003002	SB-2-4	SW-846	724193		
92626003003	SB-3-2	SW-846	724193		
92626003004	SB-4-4	SW-846	724193		
92626003005	SB-5-4	SW-846	724193		
92626003006	AST-1	SW-846	723909		
92626003007	AST-2	SW-846	723909		
92626003008	FD-1	SW-846	723909		
92626003009	FD-2	SW-846	723909		

REPORT OF LABORATORY ANALYSIS

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Effective Date: 05/12/2022 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92626003

PM: BV

Due Date: 09/23/22

CLIENT: 92-RichmonEn

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Sample Receiving Non-Conformance Form (NCF)

Date: 09/15/22	Evaluated by: TS
Client: Richmond Enviro Group	

Aff W	WO#: 92626003	List Place Number
PM: BV	Due Date: 09/23/22	
CLIENT: 92-RichmonEn		

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

Collection date/time missing or incorrect	Analyses or analytes: missing or clarification needed	<input checked="" type="checkbox"/> Samples listed on COC do not match samples received (missing, additional, etc.)
Sample IDs on COC do not match sample labels	Required trip blanks were not received	Required signatures are missing

Comments/Details/Other Issues not listed above:

SB-1 + 2 are ~~not~~ labeled as SB-3 + SB-4

3. Sample integrity issues: check applicable issues below and add details where appropriate:

Samples: Past holding time	Samples: Condition needs to be brought to lab personnel's attention (details below)	Preservation: Improper
Samples: Not field filtered	Containers: Broken or compromised	Temperature: not within acceptance criteria (typically 0-6C)
Samples: Insufficient volume received	Containers: Incorrect	Temperature: Samples arrived frozen
Samples: Cooler damaged or compromised	Custody Seals: Missing or compromised on samples, trip blanks or coolers	Vials received with improper headspace
Samples: contain chlorine or sulfides	Packing Material: Insufficient/Improper	Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Appendix C

VDEQ Case Closure Letter



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 FAX (804) 698-4178
www.deq.virginia.gov

Travis A. Voyles
Acting Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

Jerome Brooks
Regional Director

January 20, 2023

Betty Borum
19650 Maplewood Drive
Amelia Courthouse, VA 23002

RE: Site name: Emgo, 19700 Patrick Henry Hwy, Amelia, VA 23002
DEQ tracking number PC# 2023-4070

Dear Sir or Madam:

This correspondence is in regard to the Department of Environmental Quality (DEQ), Piedmont Regional Office site investigation for the referenced site.

Based on our review of all reports, the DEQ believes petroleum contamination levels at this site do not warrant further assessment or corrective action. Should environmental problems develop in the future which the DEQ determines are related to this release, additional investigation and corrective action may be required in accordance with the applicable State and Federal regulations.

All monitoring wells installed in accordance with this investigation should be properly abandoned to preclude the possibility of surficial contamination reaching ground water via these conduits. Please contact the assigned caseworker for this site for the proper well abandonment procedure and reimbursement information before undertaking this activity.

If your clean-up qualified for reimbursement of reasonable and necessary costs, your claims must be submitted within two years of the date of this letter in order to be eligible for reimbursement as stipulated by Virginia Law.

The DEQ thanks you for your efforts and cooperation in cleaning up this site. If you require additional information, please contact this office at (804) 527-5020.

Sincerely,

A handwritten signature in cursive script, reading "Robyne Bridgman".

Robyne Bridgman
Remediation Regional Manager