

April 8, 2022

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: James Boylan, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington June 15-27, 2021 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of June 15-27, 2021, by the Ambient Monitoring Program in the Covington area to characterize the EtO concentration. Each of the samples were sent to Eastern Research Group (ERG) for analysis.

The Qualifier code of "LK" was given by ERG to indicate that the sample may be biased high. The Qualifier code of "2" was given to samples to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised. No samples were taken at location C1, C6, C8, or C9 during this period.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
C2	06/15/2021		0.23
C2 QA	06/15/2021		0.11
C2	06/27/2021		0.27
C3	06/15/2021		0.12
C3	06/27/2021	LK	0.64
C4	06/15/2021	2	0.29
C4	06/27/2021		0.11
C5	06/15/2021		0.14
C5	06/27/2021		0.38
C7	06/27/2021	2	0.21

If you have any questions, please let me know.

DGO/do



Eastern Research Group
601 Keystone Park Drive
Suite 700
Morrisville, NC 27560

August 25, 2021

Ms. Jaime Gore
GA Ambient Monitoring Program
4244 International Pkwy, Suite 120
Atlanta, GA 30354
Project Name: Covington

Dear Ms. Jaime Gore,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 07/01/21 11:31 through 07/23/21 10:54.

Values below the MDL for QC results in this report are recorded as ND, however the actual values are reported in the accompanying Excel report with a "U" flag (Under the detection limit). The actual values are reported in AQS.

This test is accredited under the 2016 TNI Standard for Environmental Laboratories (FL DOH Certification # E87673). All analyses were performed as described in the US EPA-approved QAPP, under the contract for UATMP, NATTS, CSATAM, PAMS and NMOC support (US EPA Contract No. EP-D-14-030). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift
Program Manager
julie.swift@erg.com

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CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 08/25/21 12:17
SUBMITTED: 07/01/21 to 07/23/21
AQS SITE CODE:
SITE CODE: Covington

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
C2	1070116-01	Air	06/15/21 23:59	07/01/21 11:31
C2-QA	1070116-02	Air	06/15/21 23:59	07/01/21 11:31
C3	1070116-03	Air	06/15/21 23:59	07/01/21 11:31
C4	1070116-04	Air	06/15/21 23:59	07/01/21 11:31
C5	1070116-05	Air	06/15/21 23:59	07/01/21 11:31
Covington FB	1070116-06	Air	06/25/21 23:59	07/01/21 11:31
C7-SA	1072221-01	Air	06/27/21 23:59	07/22/21 10:33
C2	1072320-01	Air	06/27/21 23:59	07/23/21 10:54
C3	1072320-02	Air	06/27/21 23:59	07/23/21 10:54
C4	1072320-03	Air	06/27/21 23:59	07/23/21 10:54
C5	1072320-04	Air	06/27/21 23:59	07/23/21 10:54



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 1070116-01

Sampled: 06/15/21 23:59

Pressure @ Receipt: 7.00 "Hg

Canister #: A21065

Received: 07/01/21 11:31

Comments:

Analyzed: 07/03/21 00:20

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.128	0.23		0.0261



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REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2-QA

Lab ID: 1070116-02

Sampled: 06/15/21 23:59

Pressure @ Receipt: 7.0" Hg

Canister #: 110258

Received: 07/01/21 11:31

Comments:

Analyzed: 07/03/21 02:22

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0614	0.11		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 1070116-03

Sampled: 06/15/21 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: 19653

Received: 07/01/21 11:31

Comments:

Analyzed: 07/03/21 04:23

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0652	0.12		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 1070116-04

Sampled: 06/15/21 23:59

Pressure @ Receipt: 8.50" Hg

Canister #: 33531

Received: 07/01/21 11:31

Comments:

Analyzed: 07/03/21 05:24

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.158	0.29		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 1070116-05

Sampled: 06/15/21 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: 114322

Received: 07/01/21 11:31

Comments:

Analyzed: 07/03/21 06:25

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0791	0.14		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: Covington FB

Lab ID: 1070116-06

Sampled: 06/25/21 23:59

Pressure @ Receipt: 29.50" Hg

Canister #: SAT125

Received: 07/01/21 11:31

Comments: Field Blank

Analyzed: 07/20/21 16:52

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	ND	ND	U	0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C7-SA

Lab ID: 1072221-01

Sampled: 06/27/21 23:59

Pressure @ Receipt: 7.0" Hg

Canister #: 35136

Received: 07/22/21 10:33

Comments:

Analyzed: 07/23/21 15:02

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.114	0.21		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 1072320-01

Sampled: 06/27/21 23:59

Pressure @ Receipt: 6.00 "Hg

Canister #: SAT182

Received: 07/23/21 10:54

Comments:

Analyzed: 07/23/21 16:03

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.149	0.27		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 1072320-02

Sampled: 06/27/21 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: A22329

Received: 07/23/21 10:54

Comments:

Analyzed: 07/23/21 17:03

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.356	0.64	LK	0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 1072320-03

Sampled: 06/27/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 18873

Received: 07/23/21 10:54

Comments:

Analyzed: 07/23/21 18:04

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0579	0.11		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:17

SUBMITTED: 07/01/21 to 07/23/21

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 1072320-04

Sampled: 06/27/21 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: A21054

Received: 07/23/21 10:54

Comments:

Analyzed: 07/23/21 19:04

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.208	0.38		0.0261



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FILE #: 4222.00
REPORTED: 08/25/21 12:17
SUBMITTED: 07/01/21 to 07/23/21
AQS SITE CODE:
SITE CODE: Covington

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
<i>Batch B1G0203 - Summa Canister Prep</i>						
Blank (B1G0203-BLK1)	Prepared & Analyzed: 07/02/21					
Ethylene oxide	ND	ppbv				U
Duplicate (B1G0203-DUP1)	Source: 1070116-01 Prepared: 06/15/21 Analyzed: 07/03/21					
Ethylene oxide	0.132	ppbv	0.13	2.92	25	
Duplicate (B1G0203-DUP2)	Source: 1070116-02 Prepared: 06/15/21 Analyzed: 07/03/21					
Ethylene oxide	0.0569	ppbv	0.06	7.61	25	
<i>Batch B1G1308 - Summa Canister Prep</i>						
Blank (B1G1308-BLK1)	Prepared: 07/13/21 Analyzed: 07/20/21					
Ethylene oxide	ND	ppbv				U
<i>Batch B1G2304 - Summa Canister Prep</i>						
Blank (B1G2304-BLK1)	Prepared & Analyzed: 07/23/21					
Ethylene oxide	ND	ppbv				U



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FILE #: 4222.00
REPORTED: 08/25/21 12:17
SUBMITTED: 07/01/21 to 07/23/21
AQS SITE CODE:
SITE CODE: Covington

Analyte	Result	Units	% Difference	Limit (%)	Notes
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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2107010

Calibration Check (2107010-CCV1)

Prepared & Analyzed: 07/02/21

Ethylene oxide	2.17	ppbv	-13.3	30.00
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Sequence 2107033

Calibration Check (2107033-CCV1)

Prepared & Analyzed: 07/20/21

Ethylene oxide	2.36	ppbv	-5.6	30.00
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Sequence 2107070

Calibration Check (2107070-CCV1)

Prepared & Analyzed: 07/23/21

Ethylene oxide	2.44	ppbv	-2.3	30.00
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CERTIFICATE OF ANALYSIS

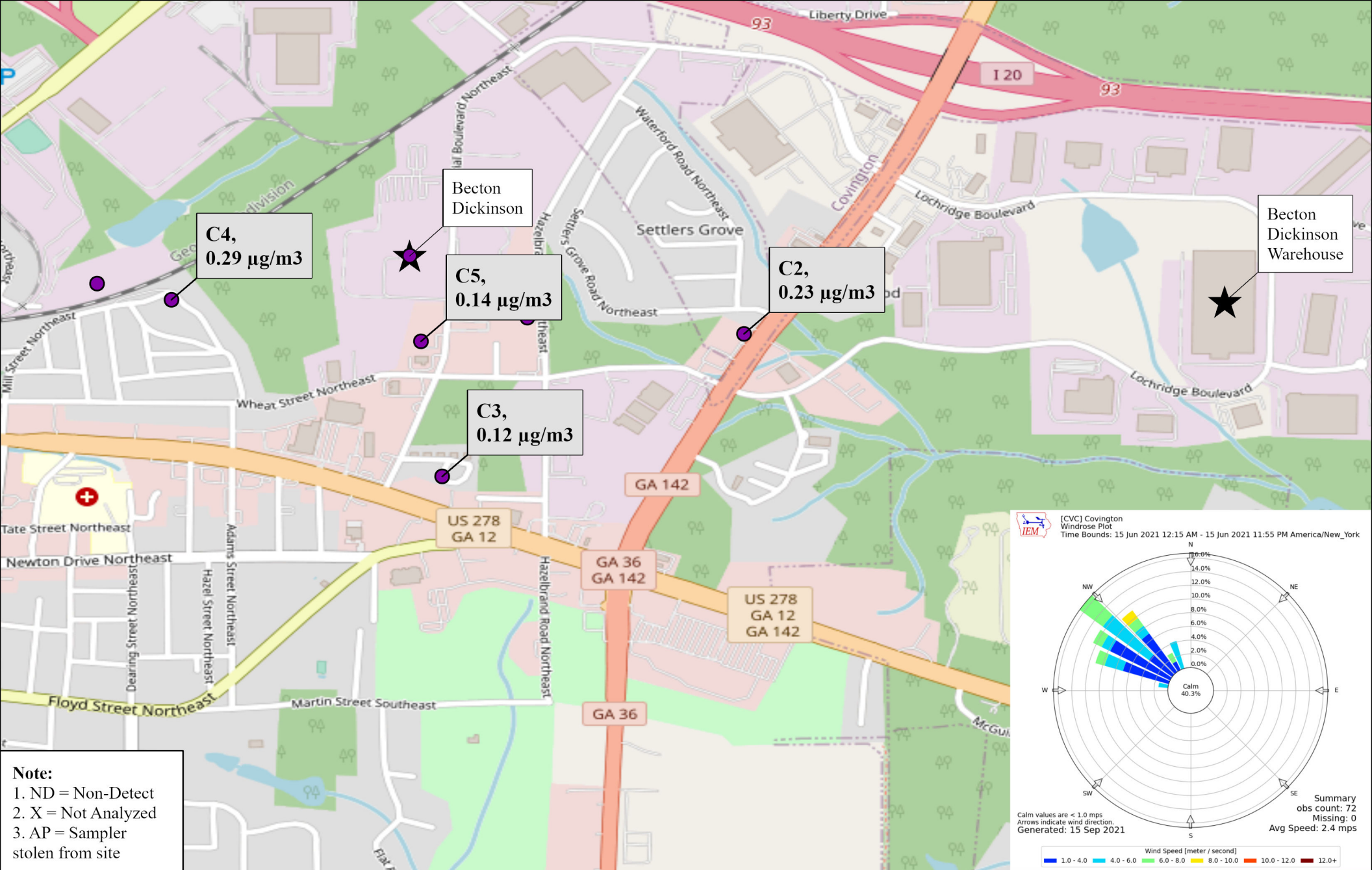
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

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SUBMITTED: 07/01/21 to 07/23/21
AQS SITE CODE:
SITE CODE: Covington

Notes and Definitions

U	Under Detection Limit
LK	Analyte identified; Reported value may be biased high.
ND	Analyte NOT DETECTED
NR	Not Reported
MDL	Method Detection Limit
RPD	Relative Percent Difference

Note: This test is accredited under the 2016 TNI Standard; however the following analytes are not accredited: acetylene, bromodichloroethane, dichlorotetrafluoromethane, ethyl tert butyl ether, n-octane, tert amyl methyl ether, trichlorofluoroethane, and bromochloromethane.



0 0.12 0.24
 Miles



Site ID, Concentration ($\mu\text{g}/\text{m}^3$)

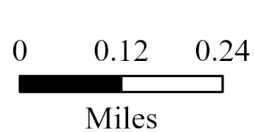
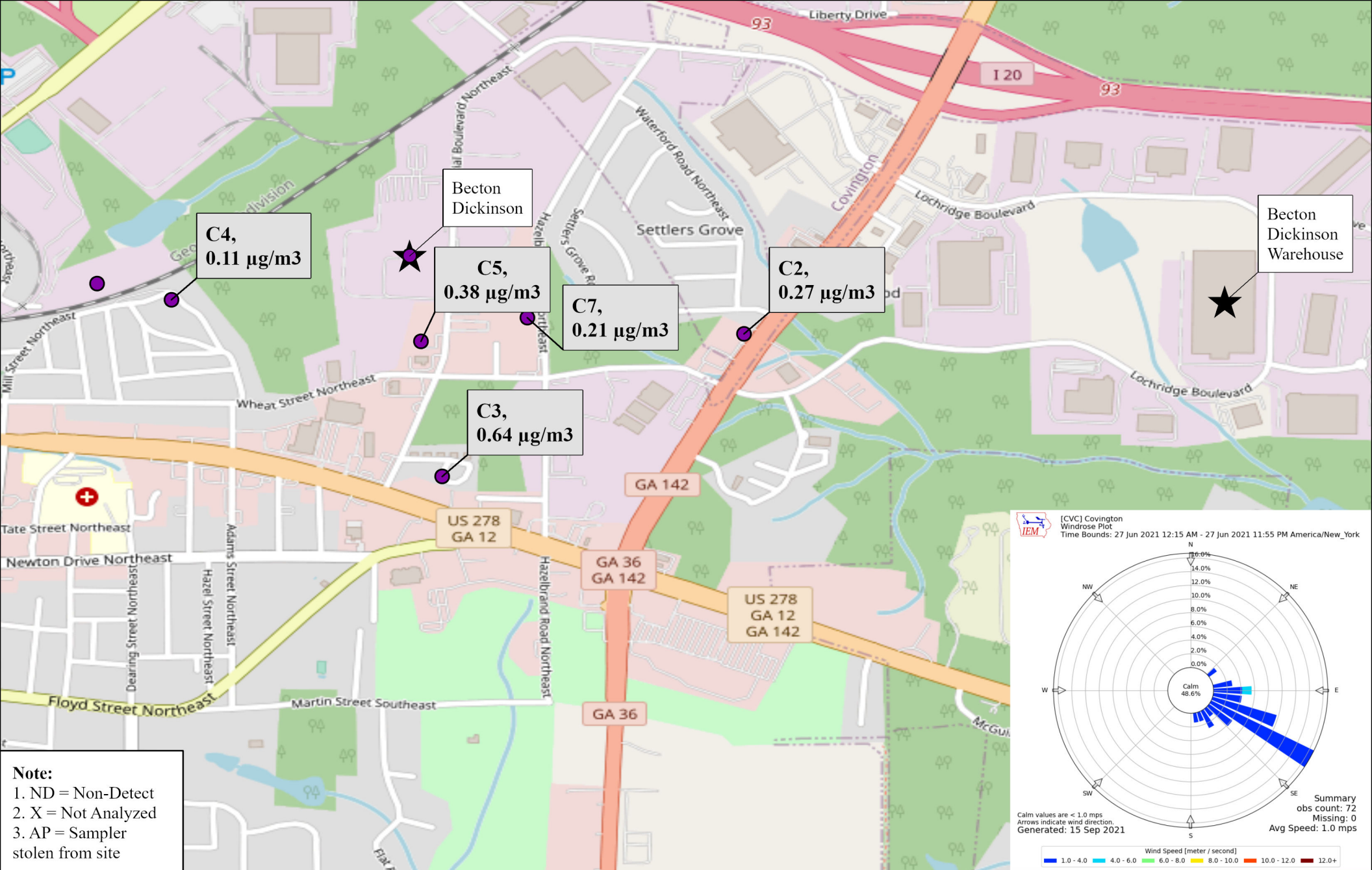
Ethylene Oxide Sampling
 Newton County, GA

June 15, 2021
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group



GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



Site ID, Concentration ($\mu\text{g}/\text{m}^3$)

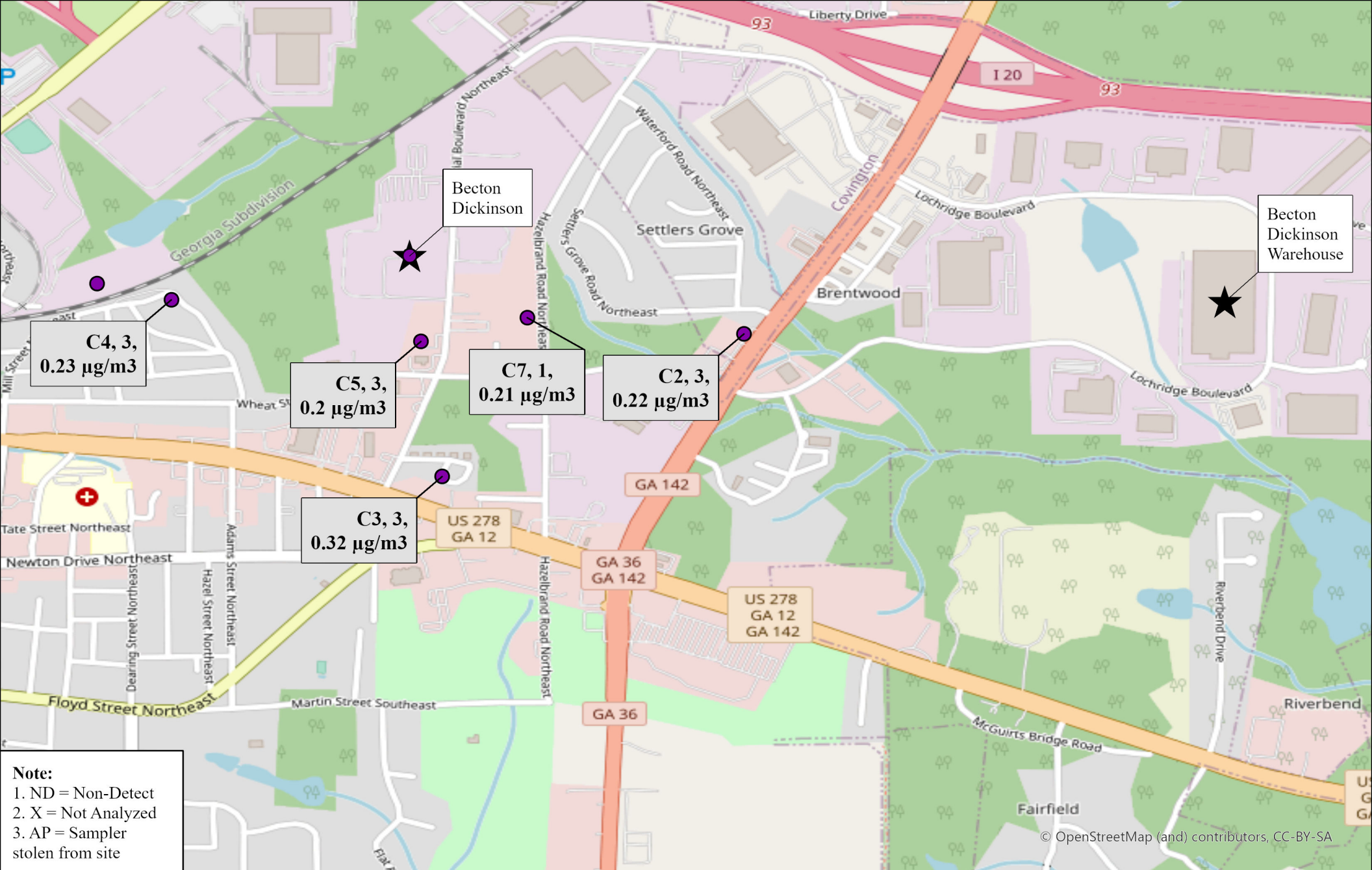
Ethylene Oxide Sampling
 Newton County, GA

June 27, 2021
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group



GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



Ethylene Oxide Sampling
 Newton County, GA

June 2021 Site Average Values
 Note: Not detectable values were included in average calculations as a value of 0.
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group