

October 12, 2022

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: James Boylan, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington August 26- September 19, 2021 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of August 26- September 19, 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. The samples listed as AF indicates the samples were scheduled but not collected. Sampling was discontinued at the end of August for site C3.

Location		Date		Qualifier		EtO Concentration (ug/m ³)
C2		08/26/2021				0.12
C2		09/07/2021				0.16
C2 QA		09/07/2021		2		0.24
C2		09/19/2021		LK		0.45
C3		08/26/2021		LK		0.52
C4		08/26/2021				AF
C4		09/07/2021				0.12
C4		09/19/2021		2		0.40
C7		08/26/2021		LK, 2		1.01
C7		09/19/2021				0.33

If you have any questions, please let me know.

DGO/do



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

October 29, 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 09/03/21 12:49 through 10/08/21 14:42.

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

The information contained in this report and its attachment(s) are intended only for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report is strictly prohibited. If you have received this report in error, please notify julie.swift@erg.com and delete the report without retaining any copies.



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: 10/29/21 14:16
SUBMITTED: 09/03/21 to 10/08/21
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	1090318-01	Air	08/26/21 23:59	09/03/21 12:49
C3	1090318-02	Air	08/26/21 23:59	09/03/21 12:49
C7 - SA	1090318-03	Air	08/26/21 23:59	09/03/21 12:49
C2	1091621-01	Air	09/07/21 23:59	09/16/21 12:06
C2-QA	1091621-02	Air	09/07/21 23:59	09/16/21 12:06
C4	1091621-03	Air	09/07/21 23:59	09/16/21 12:06
Covington FB	1091621-04	Air	09/07/21 23:59	09/16/21 12:06
C4	1100728-01	Air	09/19/21 23:59	10/07/21 12:39
C7 - SA	1100728-02	Air	09/19/21 23:59	10/07/21 12:39
C2	1100812-01	Air	09/19/21 23:59	10/08/21 14:42



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 1090318-01

Sampled: 08/26/21 23:59

Pressure @ Receipt: 6.50 "Hg

Canister #: 110342

Received: 09/03/21 12:49

Comments:

Analyzed: 09/15/21 20:52

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	0.0666	0.12		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 1090318-02

Sampled: 08/26/21 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: A21058

Received: 09/03/21 12:49

Comments:

Analyzed: 09/15/21 22:55

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	0.288	0.52		0.0261

10/12/22 LK flag added through updated information from ERG *Dgo*



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C7 - SA

Lab ID: 1090318-03

Sampled: 08/26/21 23:59

Pressure @ Receipt: 10.50 "Hg

Canister #: A21105

Received: 09/03/21 12:49

Comments:

Analyzed: 09/15/21 23:57

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	0.561	1.01		0.0261

10/12/22 LK flag added through updated information from ERG *DGO*



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 1091621-01

Sampled: 09/07/21 23:59

Pressure @ Receipt: 6.50 "Hg

Canister #: 110322

Received: 09/16/21 12:06

Comments:

Analyzed: 09/30/21 03:46

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	0.0899	0.16		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2-QA

Lab ID: 1091621-02

Sampled: 09/07/21 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: 110257

Received: 09/16/21 12:06

Comments:

Analyzed: 09/30/21 05:48

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	0.135	0.24		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 1091621-03

Sampled: 09/07/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 114340

Received: 09/16/21 12:06

Comments:

Analyzed: 09/30/21 07:51

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	0.0678	0.12		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: Covington FB

Lab ID: 1091621-04

Sampled: 09/07/21 23:59

Pressure @ Receipt: 29.5" Hg

Canister #: 33243

Received: 09/16/21 12:06

Comments: Field Blank

Analyzed: 09/29/21 18:35

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: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 1100728-01

Sampled: 09/19/21 23:59

Pressure @ Receipt: 10.50" Hg

Canister #: 33534

Received: 10/07/21 12:39

Comments:

Analyzed: 10/08/21 09:22

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	0.220	0.40	LK	0.0261

10/12/22 LK flag removed through updated information from ERG *dgo*



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C7 - SA

Lab ID: 1100728-02

Sampled: 09/19/21 23:59

Pressure @ Receipt: 5.50 "Hg

Canister #: 18810

Received: 10/07/21 12:39

Comments:

Analyzed: 10/08/21 10:23

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	0.181	0.33		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:16

SUBMITTED: 09/03/21 to 10/08/21

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 1100812-01

Sampled: 09/19/21 23:59

Pressure @ Receipt: 6.00 "Hg

Canister #: A21108

Received: 10/08/21 14:42

Comments:

Analyzed: 10/14/21 21:31

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	0.250	0.45	LK	0.0261



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FILE #: 4222.00
REPORTED: 10/29/21 14:16
SUBMITTED: 09/03/21 to 10/08/21
AQS SITE CODE:
SITE CODE: Covington

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Batch B1I1505 - Summa Canister Prep

Blank (B1I1505-BLK1)

Prepared & Analyzed: 09/15/21

Ethylene oxide	ND	ppbv				U
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Duplicate (B1I1505-DUP1)**Source: 1090318-01**

Prepared: 08/26/21 Analyzed: 09/15/21

Ethylene oxide	0.0625	ppbv	0.07	6.35	25	
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Batch B1I2906 - Summa Canister Prep

Blank (B1I2906-BLK1)

Prepared & Analyzed: 09/29/21

Ethylene oxide	ND	ppbv				U
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Duplicate (B1I2906-DUP5)**Source: 1091621-01**

Prepared: 09/07/21 Analyzed: 09/30/21

Ethylene oxide	0.0986	ppbv	0.09	9.23	25	
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Duplicate (B1I2906-DUP6)**Source: 1091621-02**

Prepared: 09/07/21 Analyzed: 09/30/21

Ethylene oxide	0.134	ppbv	0.14	0.668	25	
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Batch B1J0704 - Summa Canister Prep

Blank (B1J0704-BLK1)

Prepared & Analyzed: 10/07/21

Ethylene oxide	ND	ppbv				U
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Batch B1J1406 - Summa Canister Prep

Blank (B1J1406-BLK1)

Prepared & Analyzed: 10/14/21

Ethylene oxide	ND	ppbv				U
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4244 International Pkwy, Suite 120
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ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 10/29/21 14:16
SUBMITTED: 09/03/21 to 10/08/21
AQS SITE CODE:
SITE CODE: Covington

Analyte	Result	Units	% Difference	Limit (%)	Notes
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CERTIFICATE OF ANALYSIS

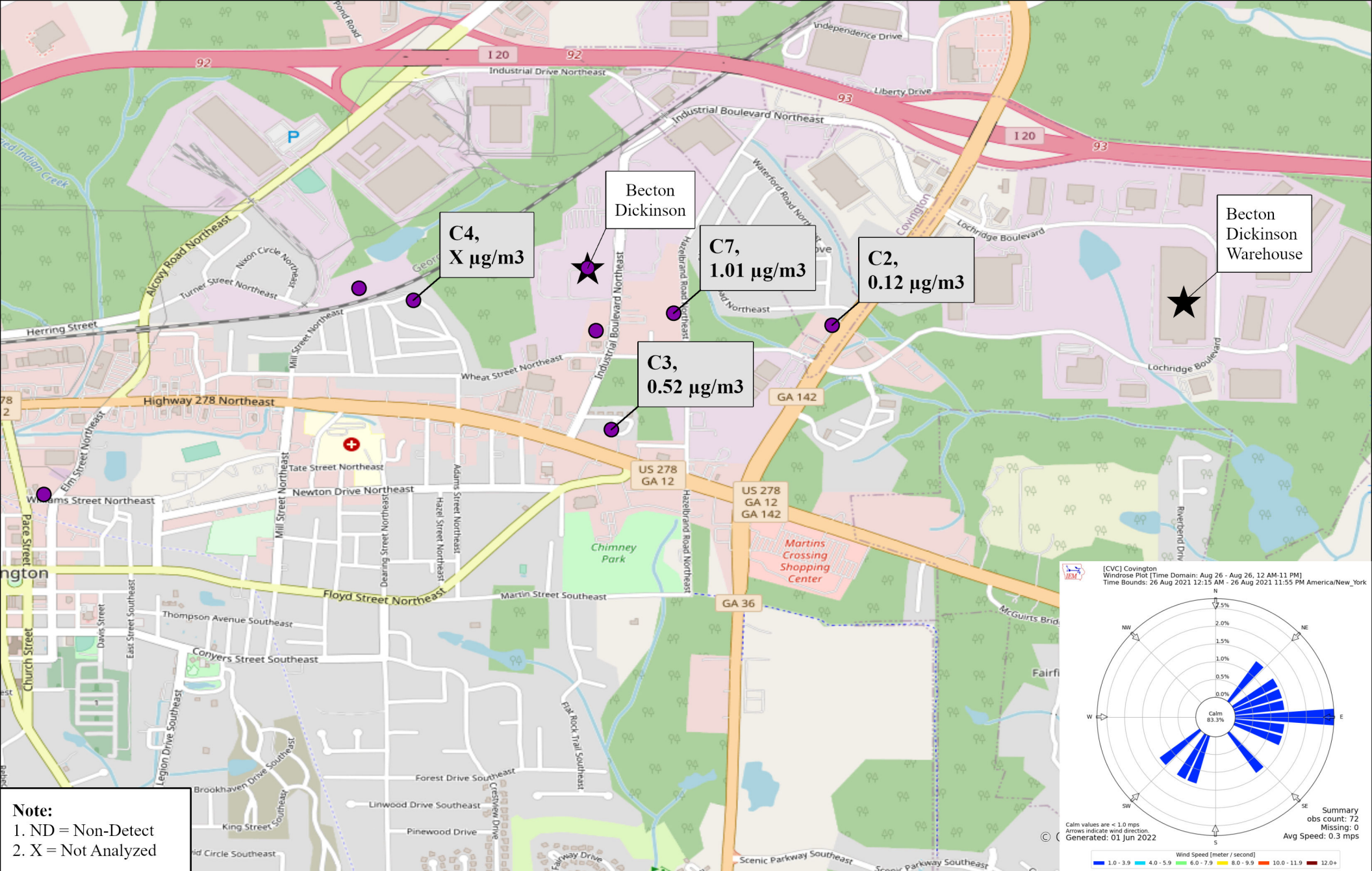
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 10/29/21 14:16
SUBMITTED: 09/03/21 to 10/08/21
AQS SITE CODE:
SITE CODE: Covington

Notes and Definitions

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

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 0.17 0.33
 Miles



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

Ethylene Oxide Sampling
 Covington, GA

08/26/2021

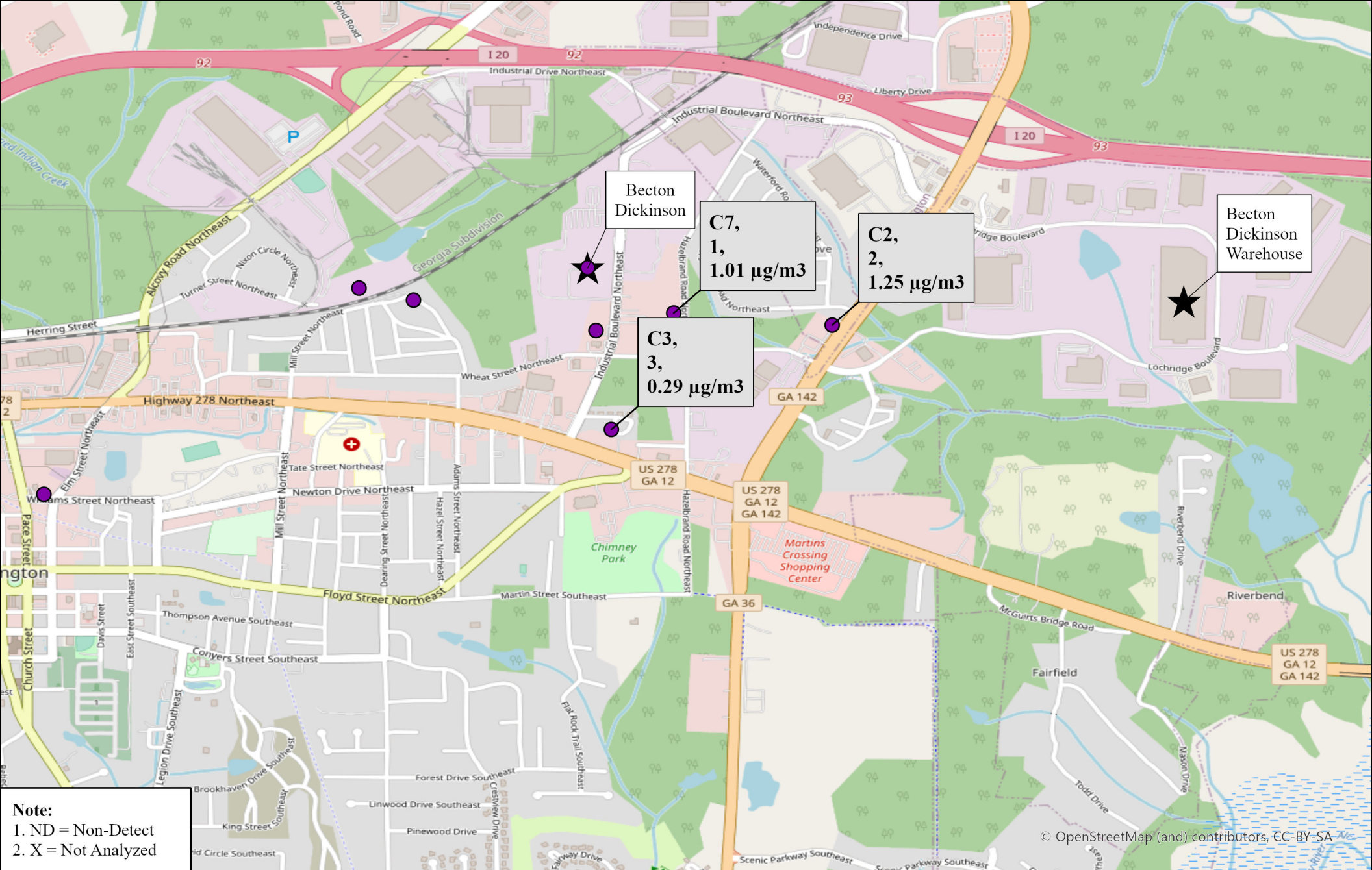
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.33
 Miles



**Site ID, Number of Samples,
 Concentration (µg/m³)**

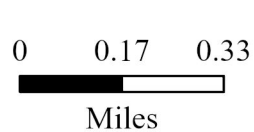
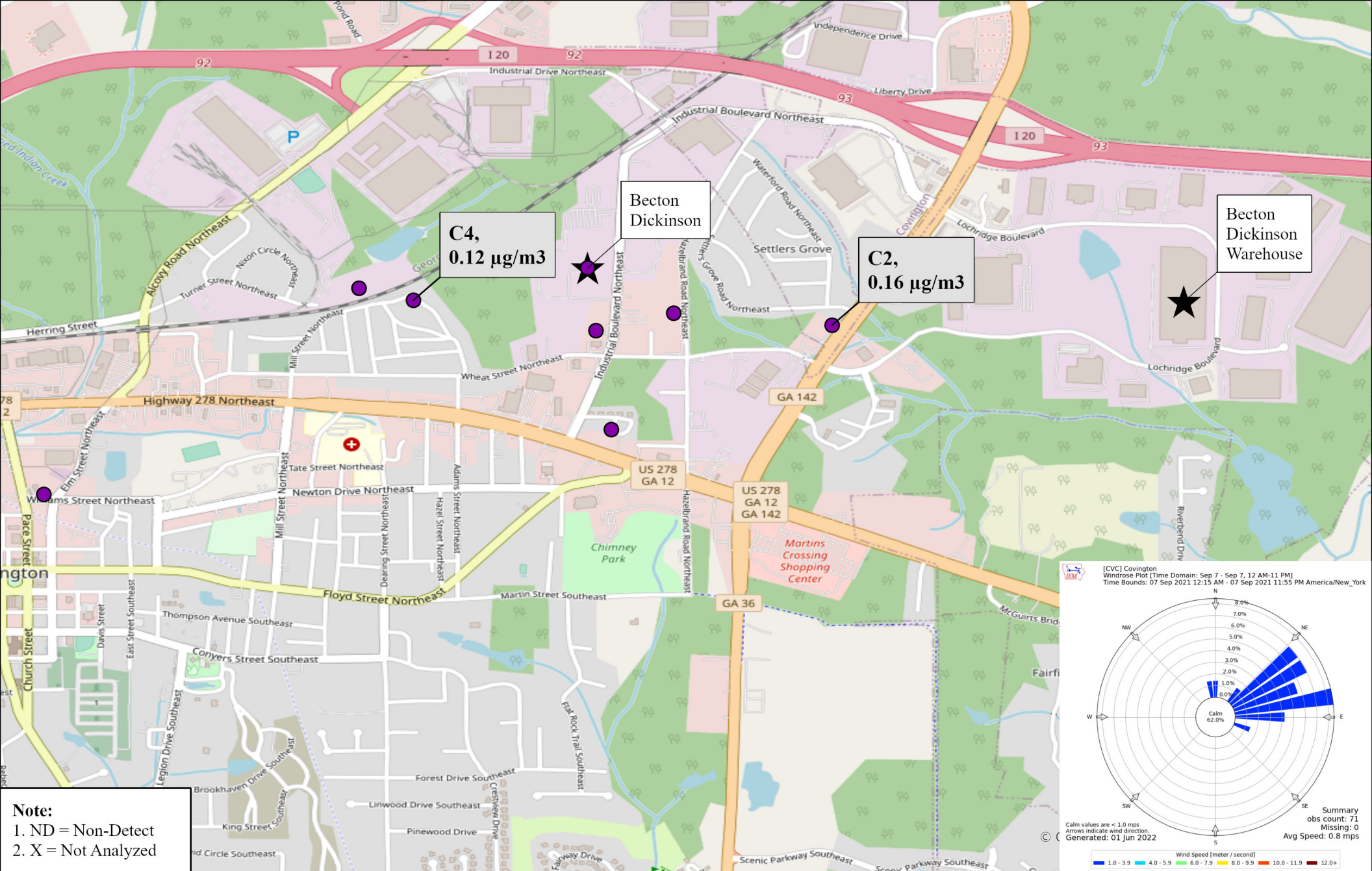
Ethylene Oxide Sampling
 Covington, GA

August 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



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ENVIRONMENTAL PROTECTION DIVISION



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

Ethylene Oxide Sampling
Covington, GA

09/07/2021

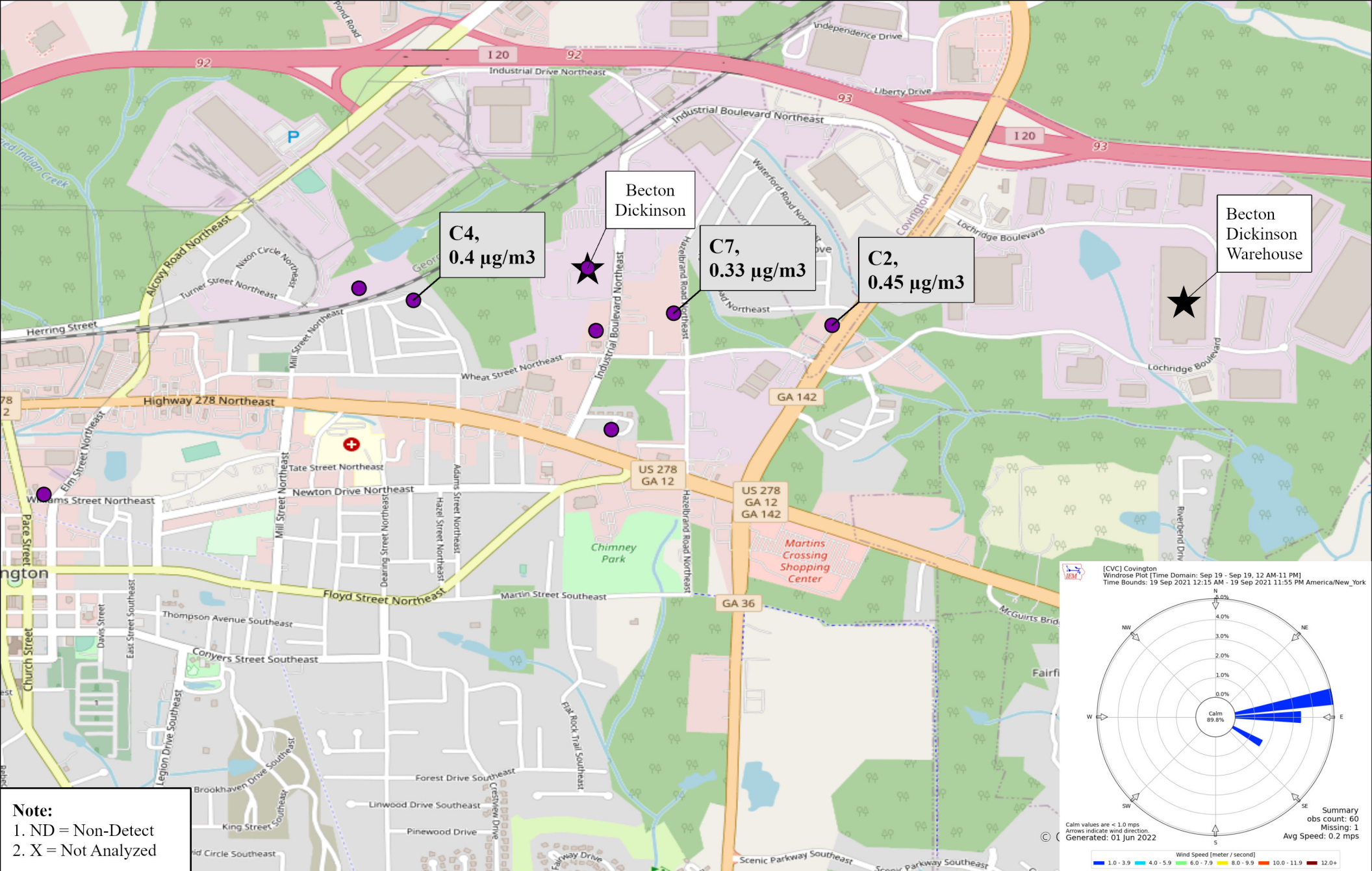
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



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DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.33
 Miles



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

Ethylene Oxide Sampling
 Covington, GA

09/19/2021

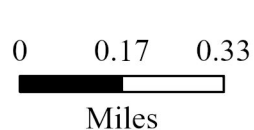
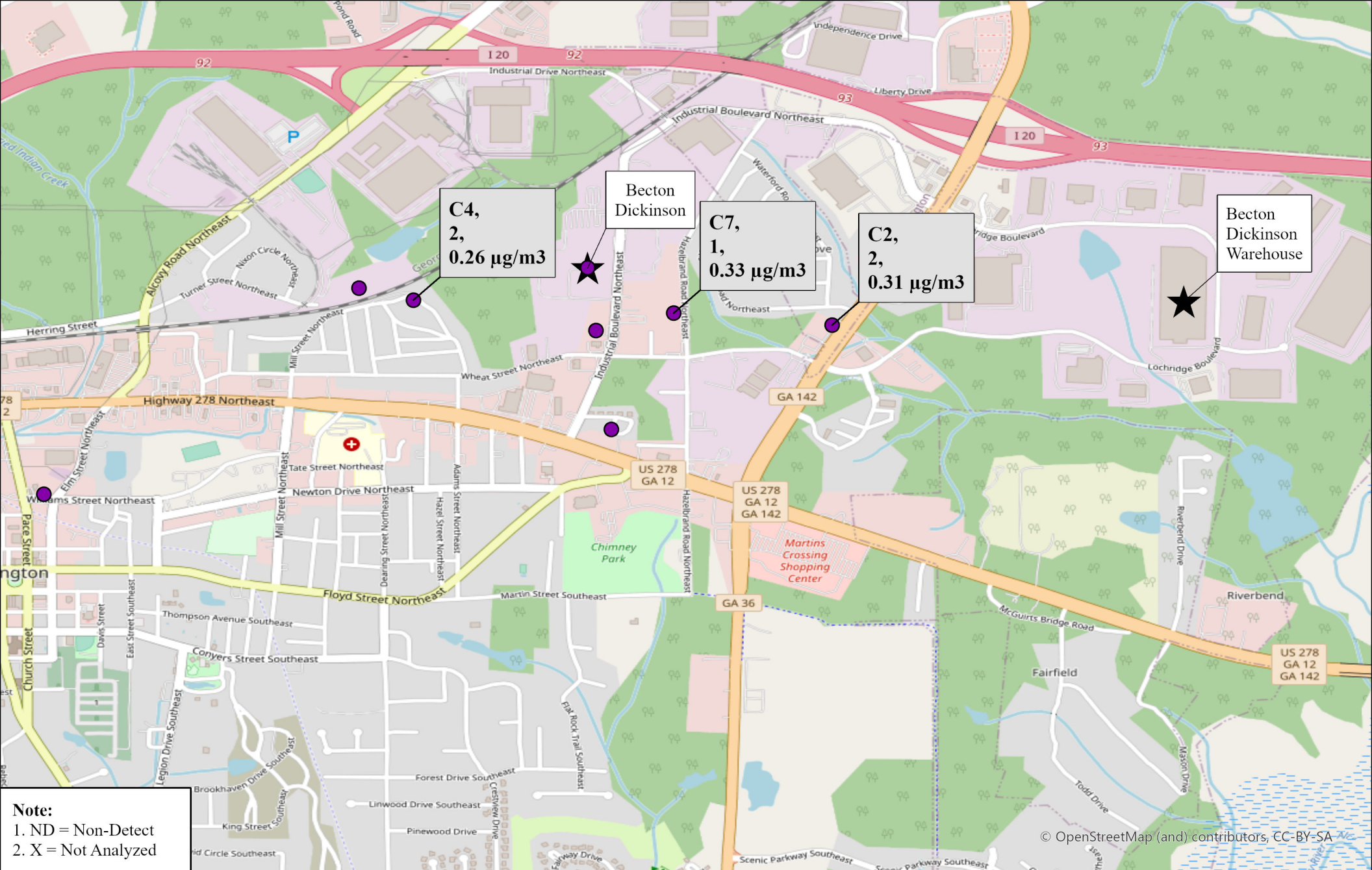
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



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Ethylene Oxide Sampling
 Covington, GA

September 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



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