

#### Richard E. Dunn, Director

#### **EPD Director's Office**

2 Martin Luther King, Jr. Drive Suite 1456, East Tower Atlanta, Georgia 30334 404-656-4713

October 13, 2020

#### **MEMORANDUM**

To: Karen Hays, Air Branch Chief

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington July 26- August 13, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of July 26 - August 13, 2020 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 samples listed as AF indicate that the sample was scheduled but not collected. The Qualifier code of "D-F" was given by ERG to indicate that the duplicate exceeds Data Quality Objectives (DQO) criteria. No samples were taken at location C1, C6, C7, C8, or C9 during this period.

Location	Date	Qualifier	EtO Concentration (ug/m³)	
C2	07/26/2020		13.8	
C2	08/01/2020	LK	0.20	
C2	08/07/2020		0.19	
C2	08/13/2020		AF	
C3	07/26/2020		0.53	
C3	08/01/2020	LK	0.35	
C3	08/07/2020		0.39	
C3	08/13/2020		AF	
C4	07/26/2020		1.51	
C4	08/01/2020	LK	0.99	
C4	08/07/2020	D-F	0.64	
C4QA	08/07/2020	D-F	0.29	
C4	08/13/2020		0.17	
C5	07/26/2020		0.64	
C5	08/01/2020		1.21	

Location	Date	Qualifier	EtO Concentration (ug/m³)
C5	08/07/2020		1.18
C5	08/13/2020		AF

If you have any questions, please let me know.

DGO/do



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

September 11, 2020

Ms. Jaime Gore U.S. Environmental Protection Agency, Region 4 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 08/05/20 14:25 through 08/21/20 12:56.

The test results in this report are in compliance with NELAC accreditation requirements for the certified parameters. 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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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:** 09/11/20 13:13

**SUBMITTED:** 08/05/20 to 08/21/20

**AQS SITE CODE:** 

SITE CODE: Covington

#### **ANALYTICAL REPORT FOR SAMPLES**

SampleName	<u>LabNumber</u>	Matrix	Sampled	Received
C2	0080534-01	Air	07/26/20 23:59	08/05/20 14:25
C3	0080534-02	Air	07/26/20 23:59	08/05/20 14:25
C4	0080534-03	Air	07/26/20 23:59	08/05/20 14:25
C5	0080618-01	Air	07/26/20 23:59	08/06/20 11:27
C3	0081325-01	Air	08/07/20 23:59	08/13/20 11:51
C4 QA	0081325-02	Air	08/07/20 23:59	08/13/20 11:51
C2	0081410-01	Air	08/01/20 23:59	08/14/20 11:57
C3	0081410-02	Air	08/01/20 23:59	08/14/20 11:57
C4	0081410-03	Air	08/01/20 23:59	08/14/20 11:57
C5	0081410-04	Air	08/01/20 23:59	08/14/20 11:57
C2	0081410-05	Air	08/07/20 23:59	08/14/20 11:57
C4	0081410-06	Air	08/07/20 23:59	08/14/20 11:57
C5	0081410-07	Air	08/07/20 23:59	08/14/20 11:57
C4	0082118-01	Air	08/13/20 23:59	08/21/20 12:56



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Atlanta, GA 30354

**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore AQS SITE CODE:

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516 **SITE CODE:** Covington

 Description:
 C2
 Lab ID:
 0080534-01
 Sampled: 07/26/20 23:59

 Pressure @ Receipt:
 3.00" Hg
 Canister #:
 35158
 Received: 08/05/20 14:25

 Comments:
 Analyzed: 08/21/20 02:28

**Air Toxics by EPA Compendium Method TO-15** 



U.S. Environmental Protection Agency, Region 4

FILE #: 4222.00

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**REPORTED:** 09/11/20 13:13

Atlanta, GA 30354

**SUBMITTED:** 08/05/20 to 08/21/20

Covington

ATTN: Ms. Jaime Gore

**FAX:** (919) 541-0516

**AQS SITE CODE:** 

SITE CODE:

**PHONE:** (404) 362-4912

Lab ID: 0080534-02

Sampled: 07/26/20 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: SAT015

Received: 08/05/20 14:25

**Comments:** 

**Description:** C3

**Analyzed:** 08/20/20 22:48

Air Toxics by EPA Compendium Method TO-15

**Results** 

0.295

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³

0.53

<u>Flag</u>



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**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore AQS SITE CODE:

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516

Covington

 Description:
 C4
 Lab ID:
 0080534-03
 Sampled: 07/26/20 23:59

 Pressure @ Receipt:
 3.00" Hg
 Canister #:
 A21086
 Received: 08/05/20 14:25

 Comments:
 Analyzed: 08/21/20 01:33

Air Toxics by EPA Compendium Method TO-15



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**REPORTED:** 09/11/20 13:13

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**Comments:** 

**Analyte** 

Ethylene oxide

**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore AQS SITE CODE:

SITE CODE: Covington

PHONE: (404) 362-4912 FAX: (919) 541-0516

Description: C5

Pressure @ Receipt: 3.50" Hg

**Canister #:** A21022

**Sampled:** 07/26/20 23:59 **Received:** 08/06/20 11:27

**Analyzed:** 08/21/20 08:52

Air Toxics by EPA Compendium Method TO-15

0080618-01

 Results
 MDL

 ppbv
 ug/m³
 Flag
 ppbv

 0.355
 0.64
 0.0285

Lab ID:



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**REPORTED:** 09/11/20 13:13

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**Description:** C3

**SUBMITTED:** 08/05/20 to 08/21/20

Covington

ATTN: Ms. Jaime Gore

**AQS SITE CODE:** 

**PHONE:** (404) 362-4912

**FAX:** (919) 541-0516 Lab ID: SITE CODE:

Sampled: 08/07/20 23:59

Pressure @ Receipt: 3.50" Hg

**Received:** 08/13/20 11:51

**Comments:** 

Canister #: SAT100

**Analyzed:** 09/02/20 07:13

Air Toxics by EPA Compendium Method TO-15

0081325-01

**Results** 

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³ 0.213

0.39

<u>Flag</u>



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**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore AQS SITE CODE:

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516

SITE CODE: Covington

 Description:
 C4 QA
 Lab ID:
 0081325-02
 Sampled: 08/07/20 23:59

 Pressure @ Receipt:
 3.50" Hg
 Canister #:
 19641
 Received: 08/13/20 11:51

 Comments:
 Analyzed: 09/02/20 02:39

Air Toxics by EPA Compendium Method TO-15



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**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore

**FAX:** (919) 541-0516

**AQS SITE CODE:** SITE CODE: Covington

**PHONE:** (404) 362-4912

Sampled: 08/01/20 23:59

Description:

Lab ID:

0081410-01

Received: 08/14/20 11:57

**Comments:** 

Pressure @ Receipt: 0.00" Hg Received at ambient pressure Canister #: SAT053

**Analyzed:** 08/29/20 02:19

Air Toxics by EPA Compendium Method TO-15

**Results** 

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³ 0.110

0.20

<u>Flag</u> LK



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ATTN: Ms. Jaime Gore

AQS SITE CODE:

SITE CODE: Covington

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516

\_\_\_\_\_

 Description:
 C3
 Lab ID:
 0081410-02
 Sampled: 08/01/20 23:59

 Pressure @ Receipt:
 4.00" Hg
 Canister #:
 SAT149
 Received: 08/14/20 11:57

 Comments:
 Analyzed: 08/29/20 03:24

**Air Toxics by EPA Compendium Method TO-15** 



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**SUBMITTED:** 08/05/20 to 08/21/20

ATTN: Ms. Jaime Gore

**AQS SITE CODE:** 

SITE CODE:

**Description:** C4

**FAX:** (919) 541-0516

CODE: Covington

Pressure @ Receipt: 5.50" Hg

**PHONE:** (404) 362-4912

**Lab ID:** 0081410-03

**Sampled:** 08/01/20 23:59 **Received:** 08/14/20 11:57

Comments:

**Canister #:** 5009

**Analyzed:** 08/29/20 04:28

Air Toxics by EPA Compendium Method TO-15

<u>Results</u>

<u>MDL</u>

Analyte
Ethylene oxide

ppbv ug/m³

0.99

0.546

Flag

<u>ppbv</u> 0.0285



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ATTN: Ms. Jaime Gore

**FAX:** (919) 541-0516

**AQS SITE CODE:** 

**PHONE:** (404) 362-4912

SITE CODE:

Covington

**Description:** C5

Lab ID:

0081410-04

Sampled: 08/01/20 23:59

Pressure @ Receipt: 3.50" Hg

Canister #: SAT038

Received: 08/14/20 11:57 **Analyzed:** 08/29/20 05:32

**Comments:** 

Air Toxics by EPA Compendium Method TO-15

**Results** 

1.21

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³

0.670

<u>Flag</u>



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**SUBMITTED:** 08/05/20 to 08/21/20

Covington

ATTN: Ms. Jaime Gore

**AQS SITE CODE:** 

**PHONE:** (404) 362-4912

SITE CODE:

Sampled: 08/07/20 23:59

Description:

Lab ID:

0.19

0081410-05

Pressure @ Receipt: 0.00" Hg

Canister #: 33533

Received: 08/14/20 11:57

**Comments:** Received at ambient pressure Analyzed: 09/01/20 23:54

Air Toxics by EPA Compendium Method TO-15

**Results** 

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³ 0.107

**FAX:** (919) 541-0516

<u>Flag</u>



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4244 International Pkwy, Suite 120 **REPORTED:** 09/11/20 13:13

Atlanta, GA 30354 **SUBMITTED:** 08/05/20 to 08/21/20 ATTN: Ms. Jaime Gore **AQS SITE CODE:** 

**PHONE:** (404) 362-4912 SITE CODE: **FAX:** (919) 541-0516 Covington

Sampled: 08/07/20 23:59 **Description:** C4 Lab ID: 0081410-06 Pressure @ Receipt: 4.50" Hg Canister #: SAT004 Received: 08/14/20 11:57 **Comments: Analyzed:** 09/02/20 00:49

Air Toxics by EPA Compendium Method TO-15

**MDL Results Analyte** ppbv ug/m³ ppbv <u>Flag</u> D-F Ethylene oxide 0.352 0.64 0.0285



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**REPORTED:** 09/11/20 13:13

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**SUBMITTED:** 08/05/20 to 08/21/20

Covington

ATTN: Ms. Jaime Gore

**AQS SITE CODE:** 

**PHONE:** (404) 362-4912

SITE CODE:

Sampled: 08/07/20 23:59

**Description:** C5

Lab ID:

0081410-07

Pressure @ Receipt: 3.50" Hg

Canister #: SAT042

Received: 08/14/20 11:57

**Comments:** 

**Analyzed:** 09/02/20 04:28

Air Toxics by EPA Compendium Method TO-15

**Results** 

1.18

**MDL** 

**Analyte** Ethylene oxide ppbv ug/m³

0.651

**FAX:** (919) 541-0516

<u>Flag</u>



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**SUBMITTED:** 08/05/20 to 08/21/20

Atlanta, GA 30354

**REPORTED:** 09/11/20 13:13

ATTN: Ms. Jaime Gore **AQS SITE CODE:** 

**PHONE:** (404) 362-4912 SITE CODE: **FAX:** (919) 541-0516 Covington

**Description:** C4 Lab ID: 0082118-01 Sampled: 08/13/20 23:59 Pressure @ Receipt: 5.50" Hg **Canister #:** 33236 Received: 08/21/20 12:56 **Comments: Analyzed:** 09/03/20 04:16

Air Toxics by EPA Compendium Method TO-15

**MDL Results Analyte** ppbv ug/m³ ppbv <u>Flag</u> Ethylene oxide 0.0913 0.17 0.0285



U.S. Environmental Protection Agency, Region 4

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FILE #: 4222.00

**REPORTED:** 09/11/20 13:13

**SUBMITTED:** 08/05/20 to 08/21/20

**AQS SITE CODE:** 

SITE CODE: Covington

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium	Method TO-15 - Q	uality Control				
Batch B0H2009 - Summa Canister	Prep					
Blank (B0H2009-BLK1)			Prepared & Analyzed	d: 08/20/20		
Ethylene oxide	ND	ppbv				U
Batch B0H2802 - Summa Canister	Prep					
Blank (B0H2802-BLK1)			Prepared: 08/11/20	Analyzed: 08/28/20		
Ethylene oxide	ND	ppbv				U
Batch B0I0108 - Summa Canister	Prep					
Blank (B0I0108-BLK1)			Prepared & Analyzed	l: 09/01/20		
Ethylene oxide	ND	ppbv				U
Duplicate (B0I0108-DUP3)	Source:	0081410-06	Prepared: 08/07/20	Analyzed: 09/02/20		
Ethylene oxide	0.358	ppbv	0.35	1.75	25	
Duplicate (B0I0108-DUP4)	Source:	0081325-02	Prepared: 08/07/20	Analyzed: 09/02/20		
Ethylene oxide	0.137	ppbv	0.16	17.0	25	
Batch B0I0206 - Summa Canister	Prep					
Blank (B0I0206-BLK1)			Prepared & Analyzed	l: 09/02/20		
Ethylene oxide	ND	ppbv				U

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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**AQS SITE CODE:** 

SITE CODE: Covington

Analyte	Result	Units	% Difference	Limit (%)	Notes
Air Toxics by EPA Compendium Me Sequence 2008048	thod TO-15 - (	Quality Contro	I		
Calibration Check (2008048-CCV1)		ı	Prepared & Analyzed	i: 08/20/20	
Ethylene oxide	2.51	ppbv	0.3	30.00	
Sequence 2008066					
Calibration Check (2008066-CCV1)		ı	Prepared & Analyzed	1: 08/28/20	
Ethylene oxide	2.31	ppbv	-6.7	30.00	
Sequence 2009001					
Calibration Check (2009001-CCV1)		ı	Prepared & Analyzed	d: 09/01/20	
Ethylene oxide	2.22	ppbv	-11.3	30.00	
Sequence 2009005					
Calibration Check (2009005-CCV1)		ı	Prepared & Analyzed	1: 09/02/20	
Ethylene oxide	2.31	ppbv	-7.5	30.00	

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ATTN: Ms. Jaime Gore AQS SITE CODE:

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516 **SITE CODE:** Covington

**Notes and Definitions** 

U Under Detection Limit

LK Analyte identified; Reported value may be biased high.

D-F Duplicate exceeds DQO criteria.

ND Analyte NOT DETECTED

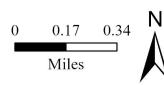
NR Not Reported

MDL Method Detection Limit

RPD Relative Percent Difference

Note: The test results meet all requirements of NELAC; however the following analytes are not accredited: 1,2,4-trimethylbenzene, 1,2-dibromoethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-butadiene, acetylene, acrolein, bromochloromethane, bromodichloromethane, bromoform, carbon disulfide, dibromochloromethane, dichlorodifluoromethane, dichlorotetrafluoroethane, ethyl tert butyl ether, ethylene oxide, hexachloro-1,3-butadiene, n-octane, propylene, tert amyl methyl ether, tetrachloroethylene, trans-1,2-dichloroethylene, trichlorofluoromethane, and trichlorotrufluoroethane.

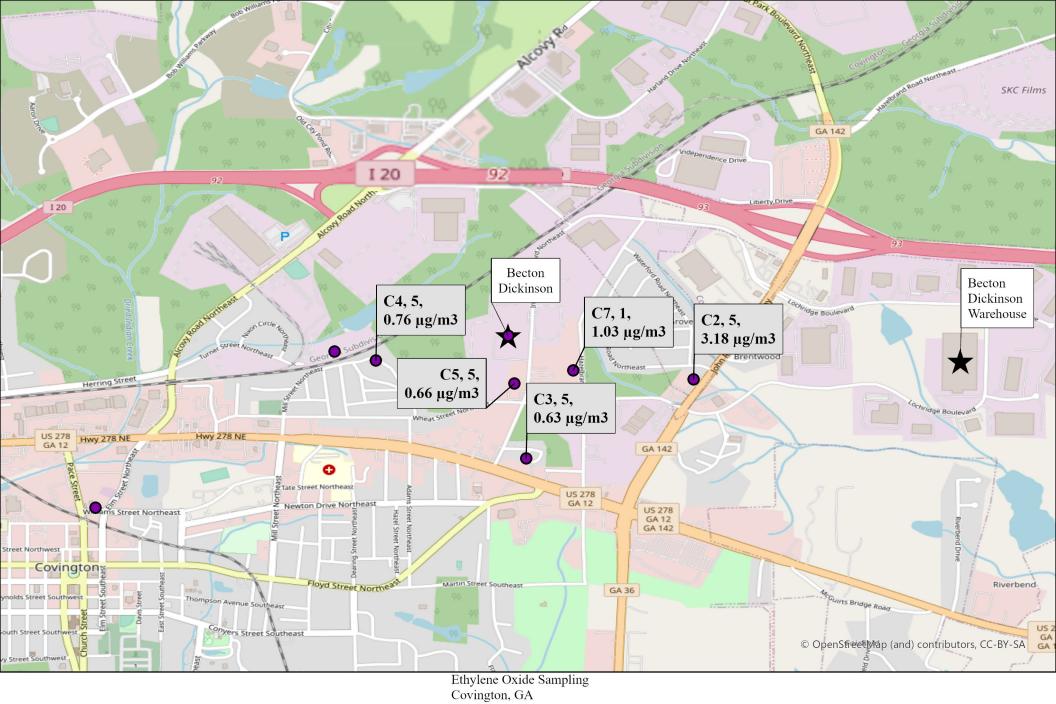




Ethylene Oxide Sampling Covington, GA

07/26/2020





0 0.17 0.34 Miles

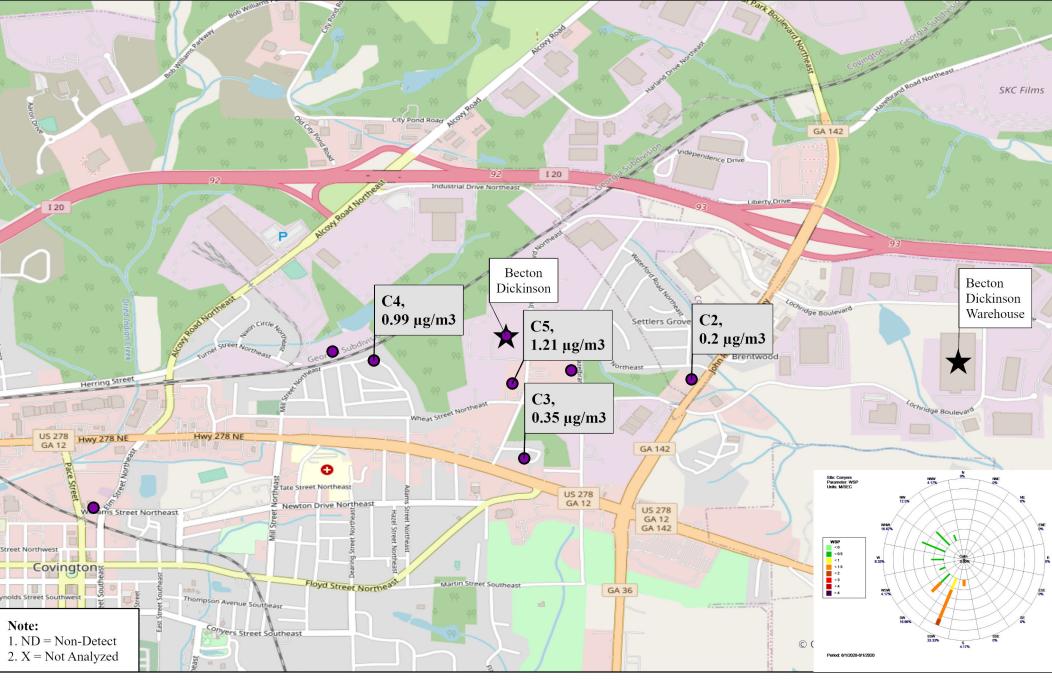
Site ID, Number of Samples, Concentration (μg/m3)

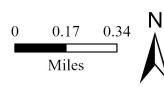
July 2020 Site Average Values

Note: Not detectable values were included in average

calculations as a value of 0.



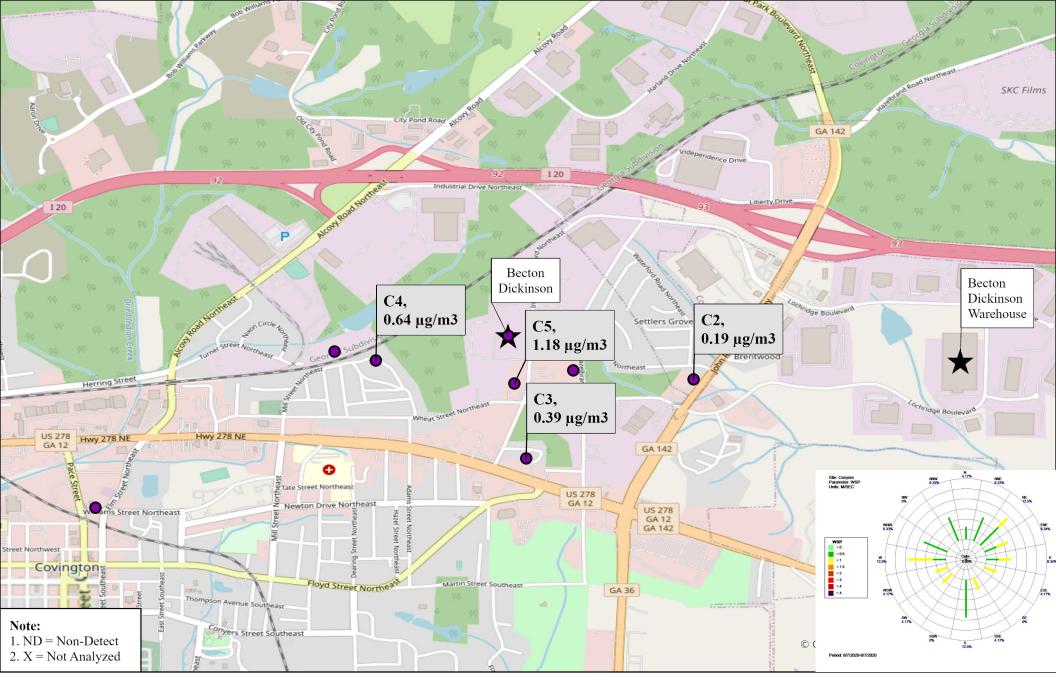


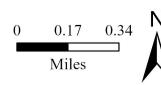


Ethylene Oxide Sampling Covington, GA

08/01/2020



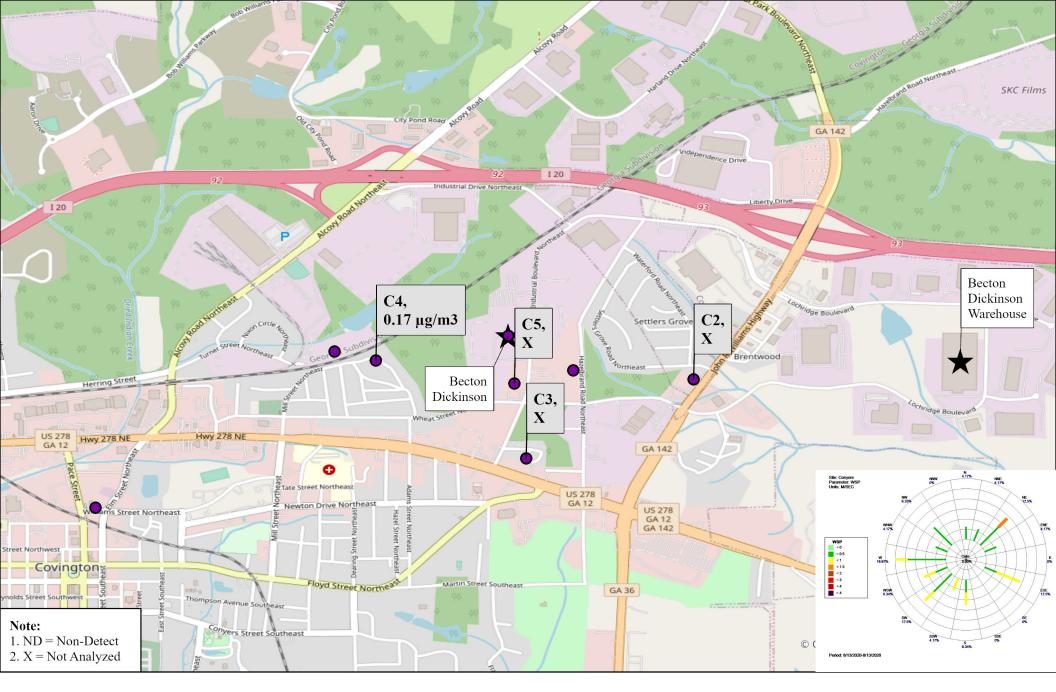


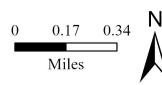


Ethylene Oxide Sampling Covington, GA

08/07/2020







Ethylene Oxide Sampling Covington, GA

08/13/2020

