

July 14, 2020

**MEMORANDUM**

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington May 9 - 15, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of May 9 – 15, 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 “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 AA indicate a sample pressure out of limits. The sample listed as BI indicates it was damaged in transit. No samples were taken at location C1, C6, C7, C8, or C9 during this period.

Location		Date		Qualifier		EtO Concentration (ug/m <sup>3</sup> )
C2		05/09/2020				0.29
C2		05/15/2020				BI
C3		05/09/2020				0.24
C3		05/15/2020				0.85
C4		05/09/2020				AA
C4		05/15/2020				AA
C4 QA		05/09/2020		2		0.71
C5		05/09/2020				0.82
C5		05/15/2020				0.30

If you have any questions, please let me know.

DGO/do



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

June 22, 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 05/15/20 11:11 through 05/29/20 11:55.

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](mailto: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:** 06/22/20 12:55

**SUBMITTED:** 05/15/20 to 05/29/20

**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	0051504-01	Air	05/09/20 23:59	05/15/20 11:11
C4	0051504-02	Air	05/09/20 23:59	05/15/20 11:11
C5	0051504-03	Air	05/09/20 23:59	05/15/20 11:11
C3	0051504-04	Air	05/09/20 23:59	05/15/20 11:11
C4 QA	0051504-05	Air	05/09/20 23:59	05/15/20 11:11
C4	0052848-02	Air	05/15/20 23:59	05/28/20 12:22
C5	0052848-03	Air	05/15/20 23:59	05/28/20 12:22
C3	0052918-02	Air	05/15/20 23:59	05/29/20 11:55



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FILE #: 4222.00

REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0051504-01

Sampled: 05/09/20 23:59

Pressure @ Receipt: 2.00" Hg

Canister #: 5099

Received: 05/15/20 11:11

Comments:

Analyzed: 06/06/20 19:05

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.162	0.29		0.0285



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AQS SITE CODE:

SITE CODE: Covington

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<b>Description:</b> C4	<b>Lab ID:</b> 0051504-02	<b>Sampled:</b> 05/09/20 23:59
<b>Pressure @ Receipt:</b> 8.00" Hg	<b>Canister #:</b> A21069	<b>Received:</b> 05/15/20 11:11
<b>Comments:</b> > 3 in Hg from field. Ambient at field recovery.		<b>Analyzed:</b> 06/06/20 20:00

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### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.196	0.35		0.0285



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REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0051504-03

Sampled: 05/09/20 23:59

Pressure @ Receipt: 3.00" Hg

Canister #: SAT185

Received: 05/15/20 11:11

Comments:

Analyzed: 06/06/20 21:51

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.456	0.82		0.0285



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FILE #: 4222.00

REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0051504-04

Sampled: 05/09/20 23:59

Pressure @ Receipt: 4.00" Hg

Canister #: SAT024

Received: 05/15/20 11:11

Comments:

Analyzed: 06/06/20 22:46

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.134	0.24		0.0285



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REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C4 QA

Lab ID: 0051504-05

Sampled: 05/09/20 23:59

Pressure @ Receipt: 0.00" Hg

Canister #: A22304

Received: 05/15/20 11:11

Comments:

Analyzed: 06/06/20 23:41

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.394	0.71		0.0285



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FILE #: 4222.00

REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0052848-02

Sampled: 05/15/20 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: 18828

Received: 05/28/20 12:22

Comments: > 3 in Hg from field

Analyzed: 06/09/20 06:29

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	1.81	3.27		0.0285



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FILE #: 4222.00

REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0052848-03

Sampled: 05/15/20 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: 0053

Received: 05/28/20 12:22

Comments:

Analyzed: 06/09/20 07:24

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.166	0.30		0.0285



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REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0052918-02

Sampled: 05/15/20 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: SAT158

Received: 05/29/20 11:55

Comments:

Analyzed: 06/09/20 21:34

### 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/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.472	0.85		0.0285



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FILE #: 4222.00

REPORTED: 06/22/20 12:55

SUBMITTED: 05/15/20 to 05/29/20

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 B0E2706 - Summa Canister Prep

##### Blank (B0E2706-BLK1)

Prepared: 05/27/20 Analyzed: 06/06/20

Ethylene oxide	ND	ppbv				U
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##### Duplicate (B0E2706-DUP1)

Source: 0051504-02

Prepared: 05/09/20 Analyzed: 06/06/20

Ethylene oxide	0.203	ppbv	0.20	3.41	25	
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##### Duplicate (B0E2706-DUP2)

Source: 0051504-05

Prepared: 05/09/20 Analyzed: 06/07/20

Ethylene oxide	0.398	ppbv	0.39	1.04	25	
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#### Batch B0F0808 - Summa Canister Prep

##### Blank (B0F0808-BLK1)

Prepared & Analyzed: 06/08/20

Ethylene oxide	ND	ppbv				U
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#### Batch B0F0907 - Summa Canister Prep

##### Blank (B0F0907-BLK1)

Prepared & Analyzed: 06/09/20

Ethylene oxide	ND	ppbv				U
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**FILE #:** 4222.00

**REPORTED:** 06/22/20 12:55

**SUBMITTED:** 05/15/20 to 05/29/20

**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 2005060*

##### **Calibration Check (2005060-CCV1)**

Prepared & Analyzed: 06/06/20

Ethylene oxide	2.45	ppbv	-0.9	30.00
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#### *Sequence 2006022*

##### **Calibration Check (2006022-CCV1)**

Prepared & Analyzed: 06/08/20

Ethylene oxide	2.61	ppbv	4.2	30.00
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#### *Sequence 2006027*

##### **Calibration Check (2006027-CCV1)**

Prepared & Analyzed: 06/09/20

Ethylene oxide	2.57	ppbv	3.0	30.00
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**FILE #:** 4222.00

**REPORTED:** 06/22/20 12:55

**SUBMITTED:** 05/15/20 to 05/29/20

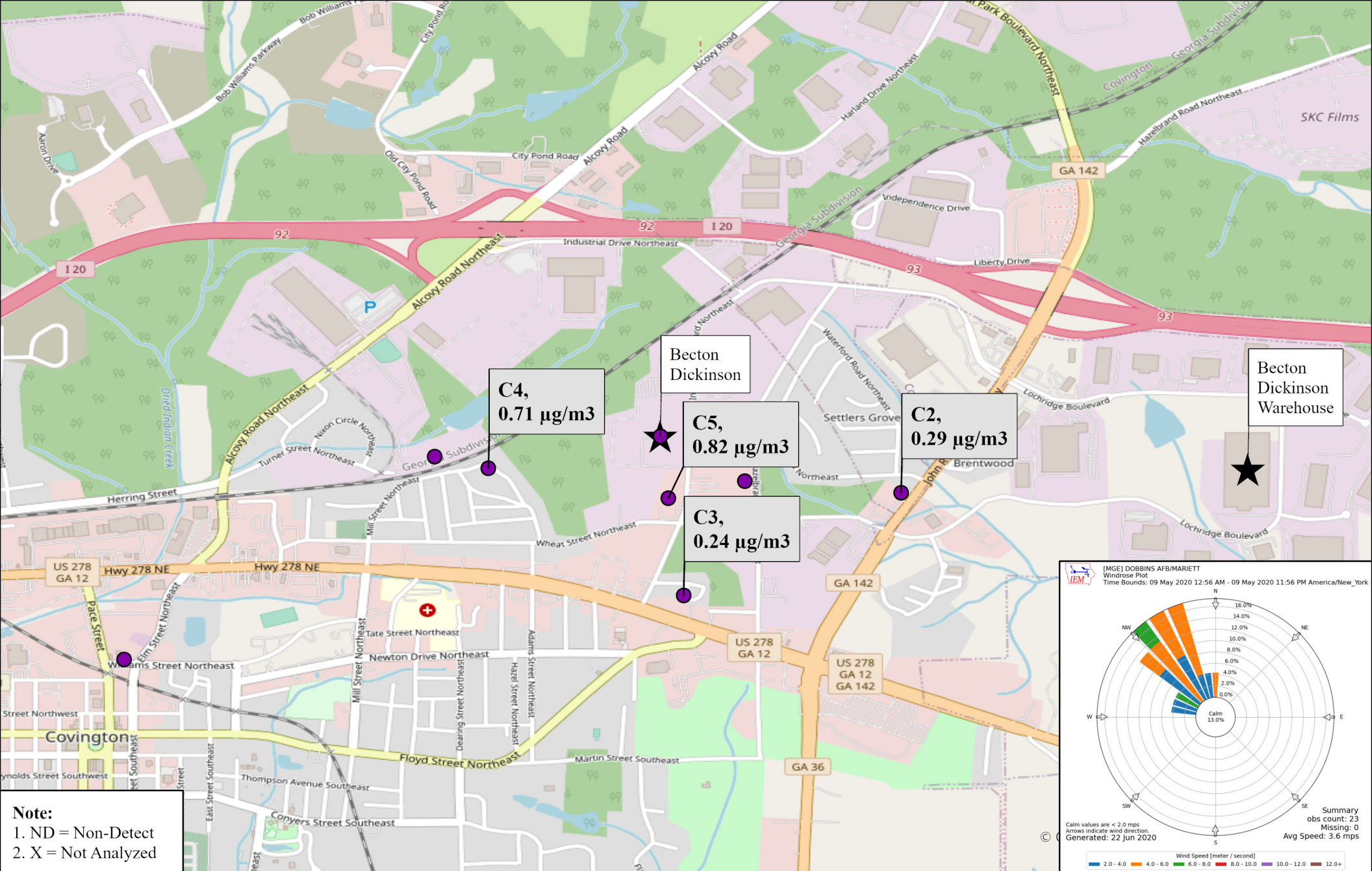
**AQS SITE CODE:**

**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

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 acrylate, ethyl tert butyl ether, ethylene oxide, hexachloro-1,3-butadiene, n-octane, propylene, tert amyl methyl ether, tetrachloroethylene, trans-1,2-dichloroethylene, trichlorofluoromethane, and trichlorotrifluoroethane.



0 0.17 0.34  
 Miles



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

Ethylene Oxide Sampling  
 Covington, GA

05/09/2020

Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**GEORGIA**  
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

