

May 18, 2020

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Cobb March 25, 2020- April 3, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of March 25, 2020- April 3, 2020 by the Ambient Monitoring Program in the Cobb 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. Please note that ERG is now providing values for levels below the detection limit.

Location		Date		Qualifier		EtO Concentration (ug/m ³)
S1		03/28/2020		2		0.18
S1		04/03/2020				0.13
S2		03/28/2020				0.78
S2		04/03/2020				0.09
S3		03/28/2020		2		0.28
S3		04/03/2020		2		0.62
S4		03/28/2020				0.40
S4		04/03/2020				0.40
S4 QA		03/28/2020		2		0.36
S7-SA		03/28/20		2		0.34

If you have any questions, please let me know.

DGO/do



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

April 30, 2020

Ms. Jaime Gore
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
Project Name: Cobb

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 04/01/20 12:37 through 04/10/20 10:42.

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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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: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
Cobb FB	0040116-01	Air	03/25/20 23:59	04/01/20 12:37
S1	0040817-01	Air	03/28/20 23:59	04/08/20 11:15
S2	0040817-02	Air	03/28/20 23:59	04/08/20 11:15
S3	0040817-03	Air	03/28/20 23:59	04/08/20 11:15
S4	0040817-04	Air	03/28/20 23:59	04/08/20 11:15
S4 QA	0040817-05	Air	03/28/20 23:59	04/08/20 11:15
S7-SA	0040817-06	Air	03/28/20 23:59	04/08/20 11:15
S1	0041003-01	Air	04/03/20 23:59	04/10/20 10:42
S2	0041003-02	Air	04/03/20 23:59	04/10/20 10:42
S3	0041003-03	Air	04/03/20 23:59	04/10/20 10:42
S4	0041003-04	Air	04/03/20 23:59	04/10/20 10:42



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REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: Cobb FB

Lab ID: 0040116-01

Sampled: 03/25/20 23:59

Pressure @ Receipt: 30.00" Hg

Canister #: A21074

Received: 04/01/20 12:37

Comments: Field Blank

Analyzed: 04/21/20 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	0.0285



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REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S1

Lab ID: 0040817-01

Sampled: 03/28/20 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: 19297

Received: 04/08/20 11:15

Comments: sampled >30 days from cleaning

Analyzed: 04/10/20 01:35

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	0.102	0.18		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 0040817-02

Sampled: 03/28/20 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: SAT159

Received: 04/08/20 11:15

Comments:

Analyzed: 04/10/20 02:30

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	0.432	0.78		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S3

Lab ID: 0040817-03

Sampled: 03/28/20 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: 19647

Received: 04/08/20 11:15

Comments: sampled >30 days from cleaning

Analyzed: 04/10/20 03:26

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	0.154	0.28		0.0285



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4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 04/30/20 11:35
SUBMITTED: 04/01/20 to 04/10/20
AQS SITE CODE:
SITE CODE: Cobb

Description: S4	Lab ID: 0040817-04	Sampled: 03/28/20 23:59
Pressure @ Receipt: 2.50" Hg	Canister #: A21084	Received: 04/08/20 11:15
Comments: sampled >30 days from cleaning		Analyzed: 04/10/20 16:10

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	0.224	0.40		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S4 QA

Lab ID: 0040817-05

Sampled: 03/28/20 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 5080

Received: 04/08/20 11:15

Comments: sampled >30 days from cleaning

Analyzed: 04/10/20 18:00

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	0.200	0.36		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S7-SA

Lab ID: 0040817-06

Sampled: 03/28/20 23:59

Pressure @ Receipt: 9.00" Hg

Canister #: 18876

Received: 04/08/20 11:15

Comments: sampled >30 days from cleaning

Analyzed: 04/10/20 04:21

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	0.186	0.34		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S1

Lab ID: 0041003-01

Sampled: 04/03/20 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: 18823

Received: 04/10/20 10:42

Comments:

Analyzed: 04/17/20 23:56

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	0.0729	0.13		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 0041003-02

Sampled: 04/03/20 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: 19296

Received: 04/10/20 10:42

Comments:

Analyzed: 04/18/20 00:51

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	0.0472	0.09		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S3

Lab ID: 0041003-03

Sampled: 04/03/20 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: 5022

Received: 04/10/20 10:42

Comments:

Analyzed: 04/18/20 01:47

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	0.343	0.62		0.0285



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FILE #: 4222.00

REPORTED: 04/30/20 11:35

SUBMITTED: 04/01/20 to 04/10/20

AQS SITE CODE:

SITE CODE: Cobb

Description: S4

Lab ID: 0041003-04

Sampled: 04/03/20 23:59

Pressure @ Receipt: 2.00" Hg

Canister #: 5116

Received: 04/10/20 10:42

Comments:

Analyzed: 04/18/20 02:43

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	0.222	0.40		0.0285



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FILE #: 4222.00
REPORTED: 04/30/20 11:35
SUBMITTED: 04/01/20 to 04/10/20
AQS SITE CODE:
SITE CODE: Cobb

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
<i>Batch B0D0805 - Summa Canister Prep</i>						
Blank (B0D0805-BLK1)			Prepared: 04/08/20 Analyzed: 04/09/20			
Ethylene oxide	ND	ppbv				U
<i>Batch B0D1002 - Summa Canister Prep</i>						
Blank (B0D1002-BLK1)			Prepared & Analyzed: 04/10/20			
Ethylene oxide	ND	ppbv				U
Duplicate (B0D1002-DUP1)			Source: 0040817-04 Prepared: 03/28/20 Analyzed: 04/10/20			
Ethylene oxide	0.221	ppbv	0.22	1.39	25	
Duplicate (B0D1002-DUP2)			Source: 0040817-05 Prepared: 03/28/20 Analyzed: 04/10/20			
Ethylene oxide	0.197	ppbv	0.20	1.36	25	
<i>Batch B0D1701 - Summa Canister Prep</i>						
Blank (B0D1701-BLK1)			Prepared & Analyzed: 04/17/20			
Ethylene oxide	ND	ppbv				U
<i>Batch B0D2104 - Summa Canister Prep</i>						
Blank (B0D2104-BLK1)			Prepared & Analyzed: 04/21/20			
Ethylene oxide	ND	ppbv				U



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FILE #: 4222.00
REPORTED: 04/30/20 11:35
SUBMITTED: 04/01/20 to 04/10/20
AQS SITE CODE:
SITE CODE: Cobb

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

Sequence 2004021

Calibration Check (2004021-CCV1)

Prepared: 04/08/20 Analyzed: 04/09/20

Ethylene oxide	2.36	ppbv	-4.4	30.00
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Sequence 2004028

Calibration Check (2004028-CCV1)

Prepared & Analyzed: 04/10/20

Ethylene oxide	2.58	ppbv	4.3	30.00
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Sequence 2004040

Calibration Check (2004040-CCV1)

Prepared & Analyzed: 04/17/20

Ethylene oxide	2.58	ppbv	3.2	30.00
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Sequence 2004046

Calibration Check (2004046-CCV1)

Prepared & Analyzed: 04/21/20

Ethylene oxide	2.73	ppbv	9.4	30.00
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SUBMITTED: 04/01/20 to 04/10/20

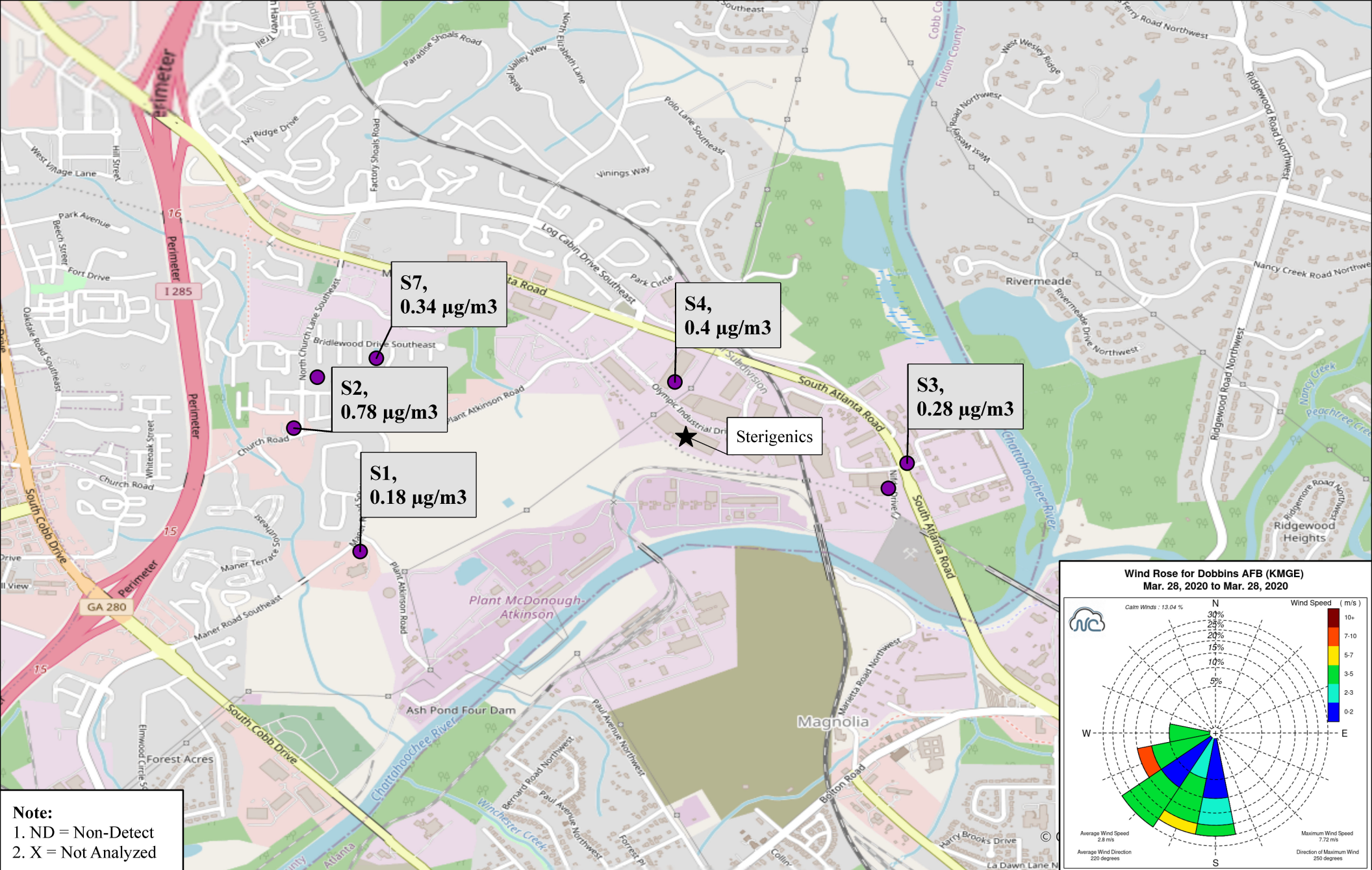
AQS SITE CODE:

SITE CODE: Cobb

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
 Cobb County, GA

03/28/2020

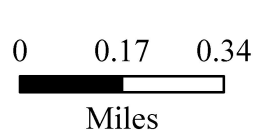
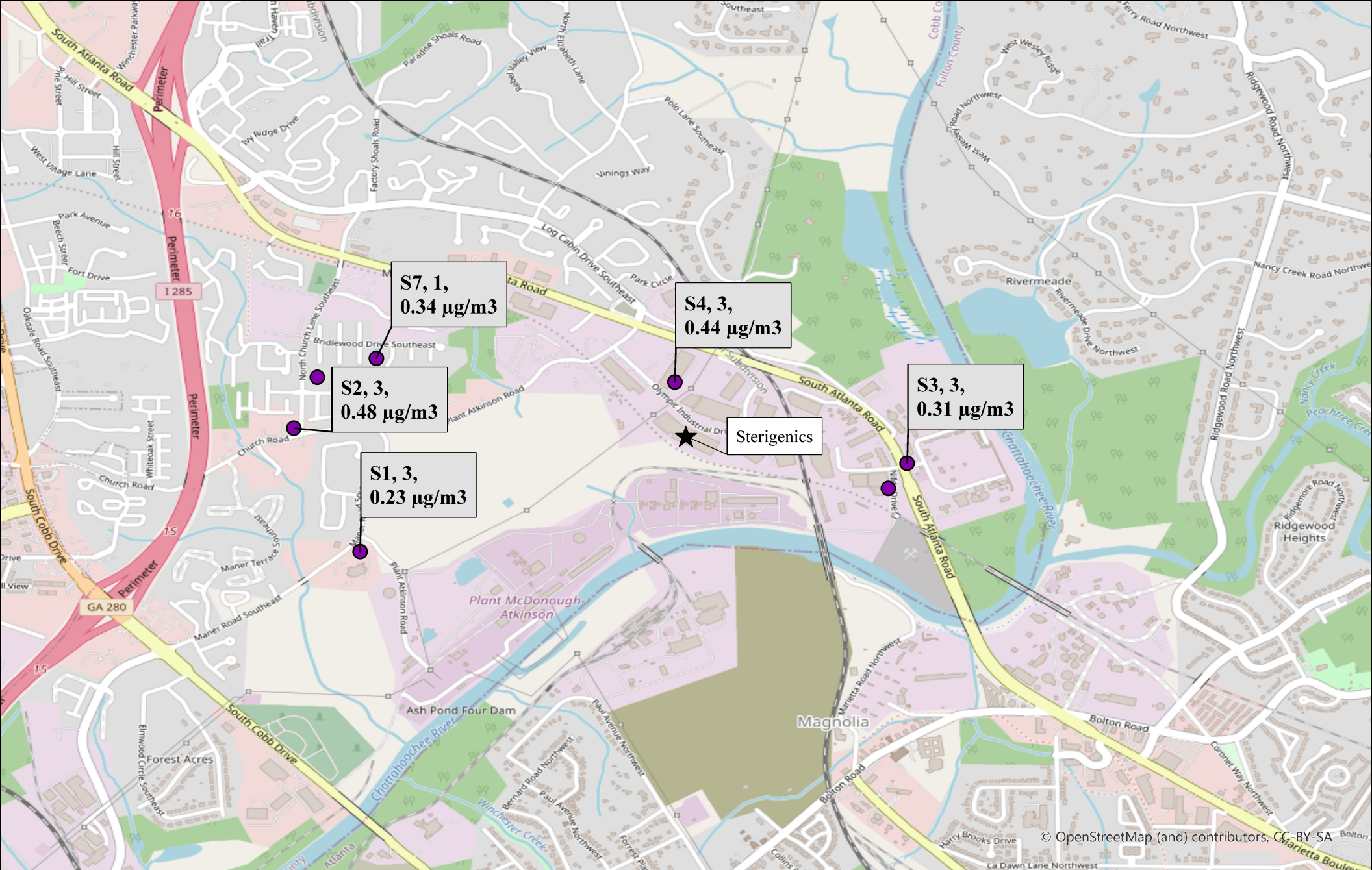
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



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

Ethylene Oxide Sampling
Cobb County, GA

March 2020 Site Average Values

Note: Not detectable values were included in average calculations as a value of 0.

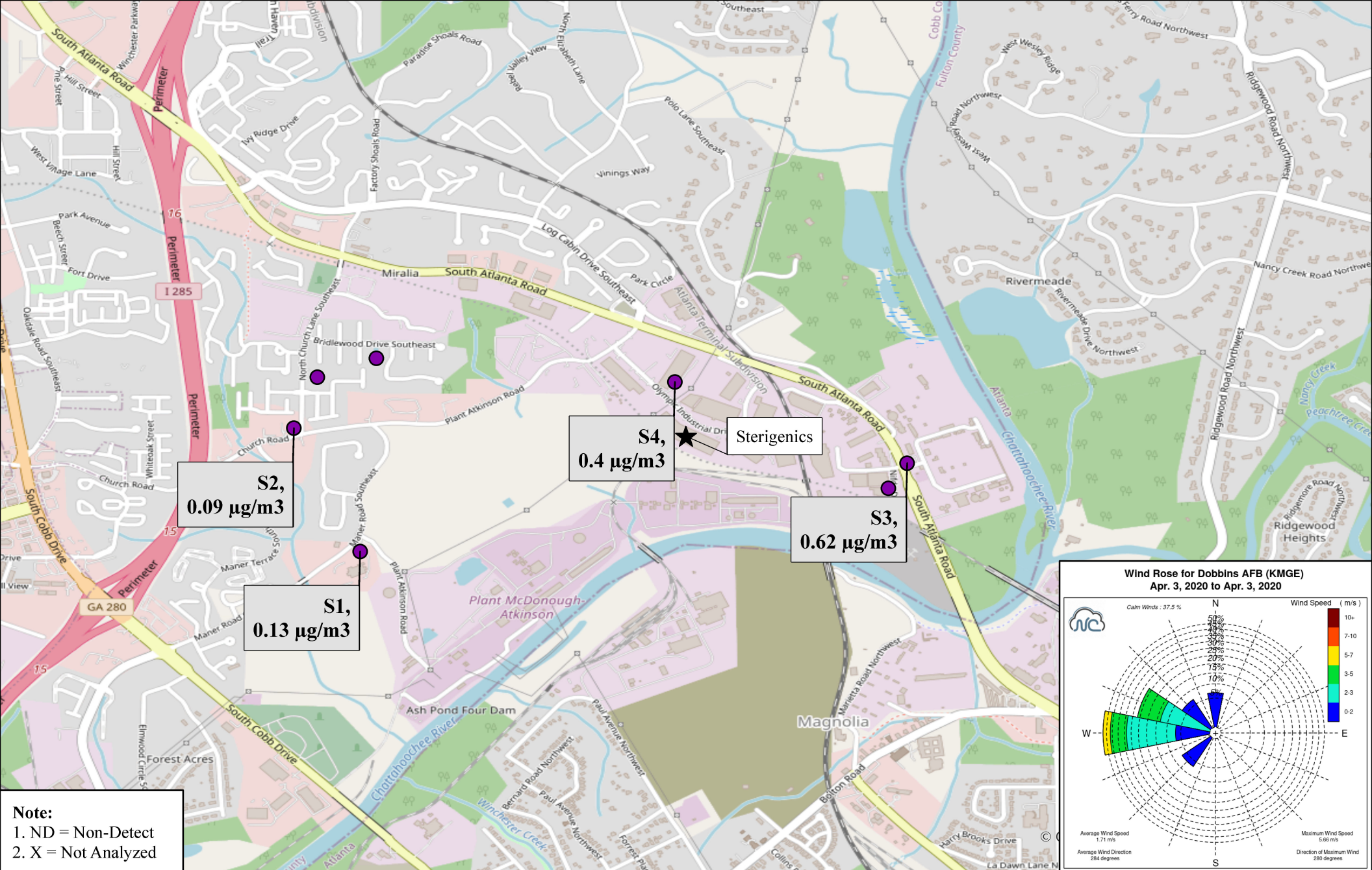
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.34
 Miles



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

Ethylene Oxide Sampling
 Cobb County, GA

04/03/2020
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group



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