

April 4, 2022

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: James Boylan, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Cobb – June 15 – June 27, 2021, Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of June 15 – June 27, 2021, 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. The Qualifier code of “3” was given to samples to indicate that integrity of the field data may have been compromised. The Qualifier Code “CE” was given to indicate the sample is not reportable due to a co-eluting compound. The Qualifier code of “ND” was given to samples to indicate that no value detected, zero reported. The Qualifier code "U" was given by ERG to indicate that the sample is under the detection limit.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
S1	06/15/2021	2, U, CE, ND	0
S1	06/27/2021		0.32
S2	06/15/2021	2, 3	0.13
S2	06/27/2021	3	0.12
S2 QA	06/15/2021	3	0.20
S3	06/15/2021		0.22
S3	06/27/2021		0.15
S4	06/15/2021		0.15
S4	06/27/2021		0.08
S6	06/27/2021	2	0.26
S7	06/27/2021	2	0.98

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: 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 07/01/21 11:17 through 07/23/21 11:11.

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: 08/25/21 12:14
SUBMITTED: 07/01/21 to 07/23/21
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	1070113-01	Air	06/24/21 23:59	07/01/21 11:17
S1	1070113-02	Air	06/15/21 23:59	07/01/21 11:17
S2	1070113-03	Air	06/15/21 23:59	07/01/21 11:17
S3	1070113-04	Air	06/15/21 23:59	07/01/21 11:17
S4	1070113-05	Air	06/15/21 23:59	07/01/21 11:17
S2-QA	1070208-01	Air	06/15/21 23:59	07/02/21 10:21
S1	1072322-01	Air	06/27/21 23:59	07/23/21 11:11
S2	1072322-02	Air	06/27/21 23:59	07/23/21 11:11
S3	1072322-03	Air	06/27/21 23:59	07/23/21 11:11
S4	1072322-04	Air	06/27/21 23:59	07/23/21 11:11
S6	1072322-05	Air	06/27/21 23:59	07/23/21 11:11
S7	1072322-06	Air	06/27/21 23:59	07/23/21 11:11



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REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: Cobb FB

Lab ID: 1070113-01

Sampled: 06/24/21 23:59

Pressure @ Receipt: 30.0 "Hg

Canister #: 111217

Received: 07/01/21 11:17

Comments: Field Blank

Analyzed: 07/20/21 14:51

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	ND	ND	U	0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S1

Lab ID: 1070113-02

Sampled: 06/15/21 23:59

Pressure @ Receipt: 8.00" Hg

Canister #: A21070

Received: 07/01/21 11:17

Comments:

Analyzed: 07/02/21 17:16

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	CE, U	0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 1070113-03

Sampled: 06/15/21 23:59

Pressure @ Receipt: 8.00" Hg

Canister #: 110322

Received: 07/01/21 11:17

Comments:

Analyzed: 07/09/21 04:13

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	0.0737	0.13		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S3

Lab ID: 1070113-04

Sampled: 06/15/21 23:59

Pressure @ Receipt: 4.0" Hg

Canister #: 110305

Received: 07/01/21 11:17

Comments:

Analyzed: 07/02/21 18:16

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	0.123	0.22		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S4

Lab ID: 1070113-05

Sampled: 06/15/21 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: 110257

Received: 07/01/21 11:17

Comments:

Analyzed: 07/02/21 19:17

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	0.0843	0.15		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S2-QA

Lab ID: 1070208-01

Sampled: 06/15/21 23:59

Pressure @ Receipt: 7.00 "Hg

Canister #: 111219

Received: 07/02/21 10:21

Comments:

Analyzed: 07/09/21 11:14

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	0.112	0.20		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S1

Lab ID: 1072322-01

Sampled: 06/27/21 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: A21000

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 00:07

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	0.175	0.32		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 1072322-02

Sampled: 06/27/21 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: 19279

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 01:08

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	0.0683	0.12		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S3

Lab ID: 1072322-03

Sampled: 06/27/21 23:59

Pressure @ Receipt: 6.0" Hg

Canister #: 18823

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 02:08

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	0.0808	0.15		0.0261



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REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S4

Lab ID: 1072322-04

Sampled: 06/27/21 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: 33490

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 03:09

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	0.0430	0.08		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S6

Lab ID: 1072322-05

Sampled: 06/27/21 23:59

Pressure @ Receipt: 8.00" Hg

Canister #: 33532

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 04:10

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	0.141	0.26		0.0261



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FILE #: 4222.00

REPORTED: 08/25/21 12:14

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

AQS SITE CODE:

SITE CODE: Cobb

Description: S7

Lab ID: 1072322-06

Sampled: 06/27/21 23:59

Pressure @ Receipt: 7.50 "Hg

Canister #: A21105

Received: 07/23/21 11:11

Comments:

Analyzed: 07/24/21 05:10

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	0.545	0.98		0.0261



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

FILE #: 4222.00
REPORTED: 08/25/21 12:14
SUBMITTED: 07/01/21 to 07/23/21
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 B1G0203 - Summa Canister Prep</i>						
Blank (B1G0203-BLK1)	Prepared & Analyzed: 07/02/21					
Ethylene oxide	ND	ppbv				U
<i>Batch B1G0811 - Summa Canister Prep</i>						
Blank (B1G0811-BLK1)	Prepared & Analyzed: 07/08/21					
Ethylene oxide	ND	ppbv				U
Duplicate (B1G0811-DUP3)	Source: 1070113-03		Prepared: 06/15/21 Analyzed: 07/09/21			
Ethylene oxide	0.0731	ppbv	0.07	0.817	25	
Duplicate (B1G0811-DUP4)	Source: 1070208-01		Prepared: 06/15/21 Analyzed: 07/09/21			
Ethylene oxide	0.114	ppbv	0.11	1.78	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 12:14
SUBMITTED: 07/01/21 to 07/23/21
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 2107010

Calibration Check (2107010-CCV1)

Prepared & Analyzed: 07/02/21

Ethylene oxide	2.17	ppbv	-13.3	30.00
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Sequence 2107022

Calibration Check (2107022-CCV1)

Prepared & Analyzed: 07/08/21

Ethylene oxide	2.20	ppbv	-11.9	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

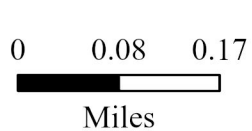
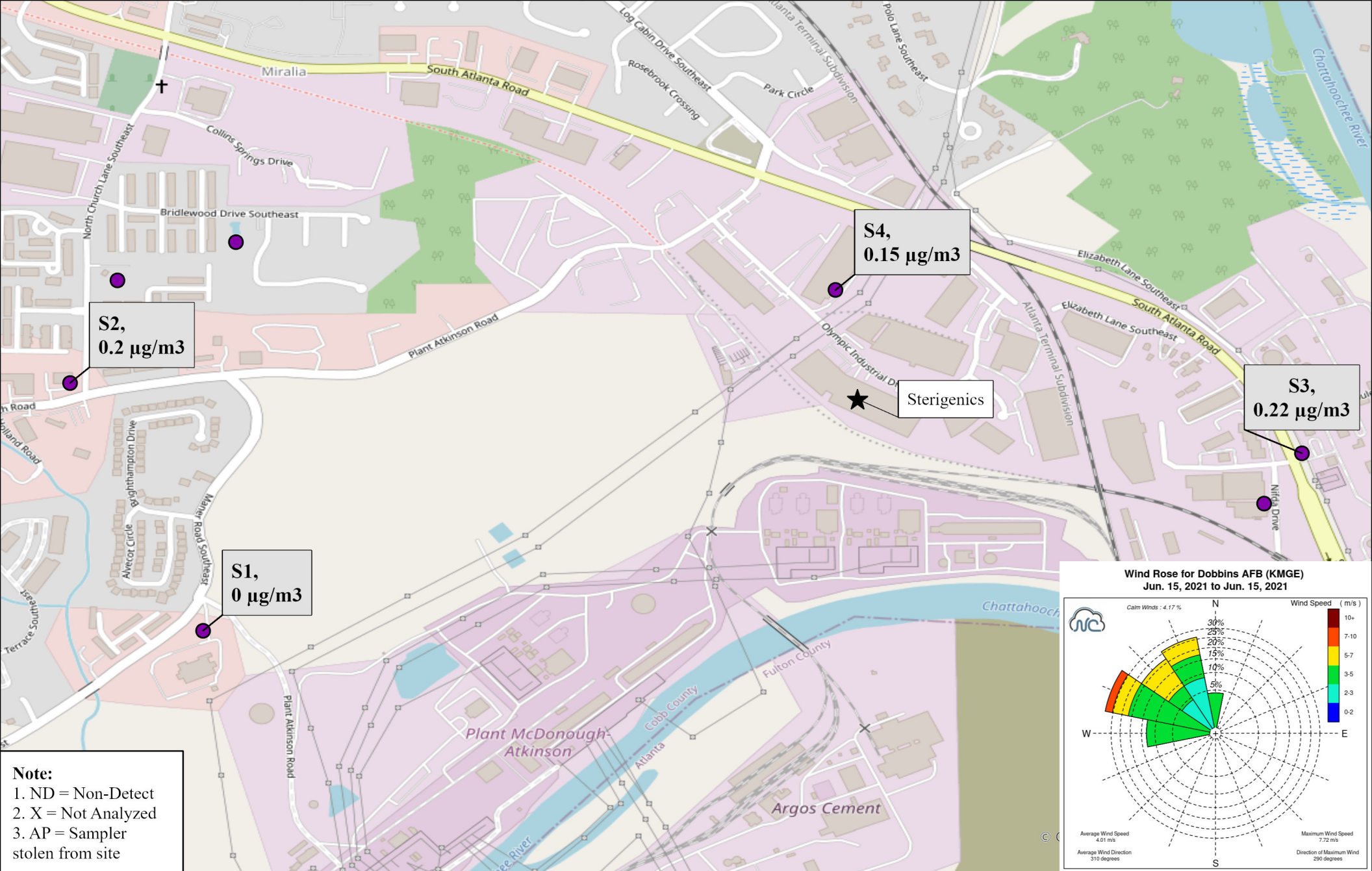
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 08/25/21 12:14
SUBMITTED: 07/01/21 to 07/23/21
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
CE	Not reportable due to a co-eluting compound.

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.



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

Ethylene Oxide Sampling
 Cobb County, GA

June 15, 2021

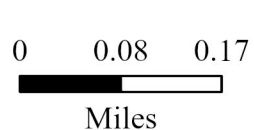
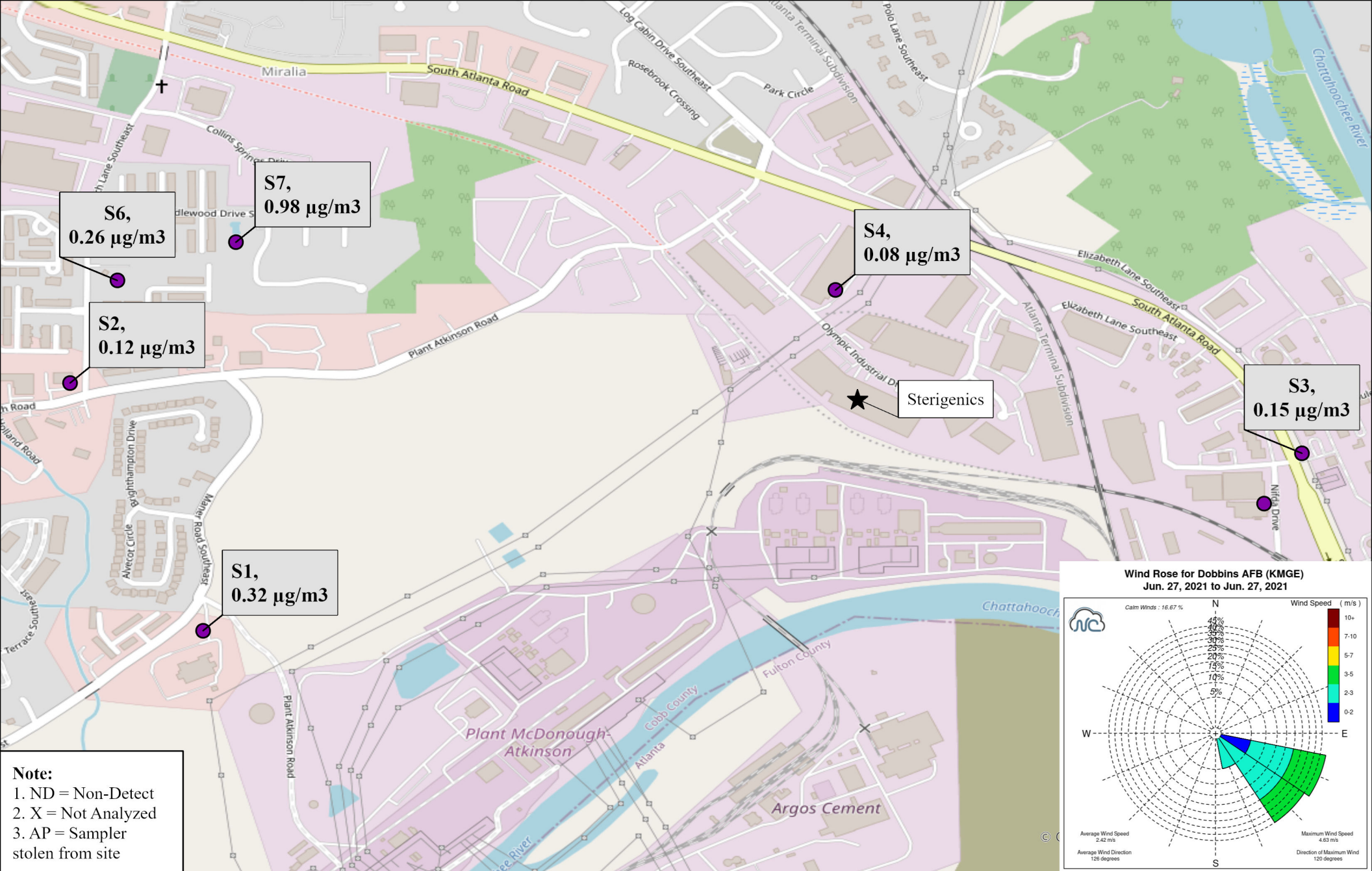
Sampled By: Georgia Environmental Protection Division

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
 Cobb County, GA

June 27, 2021

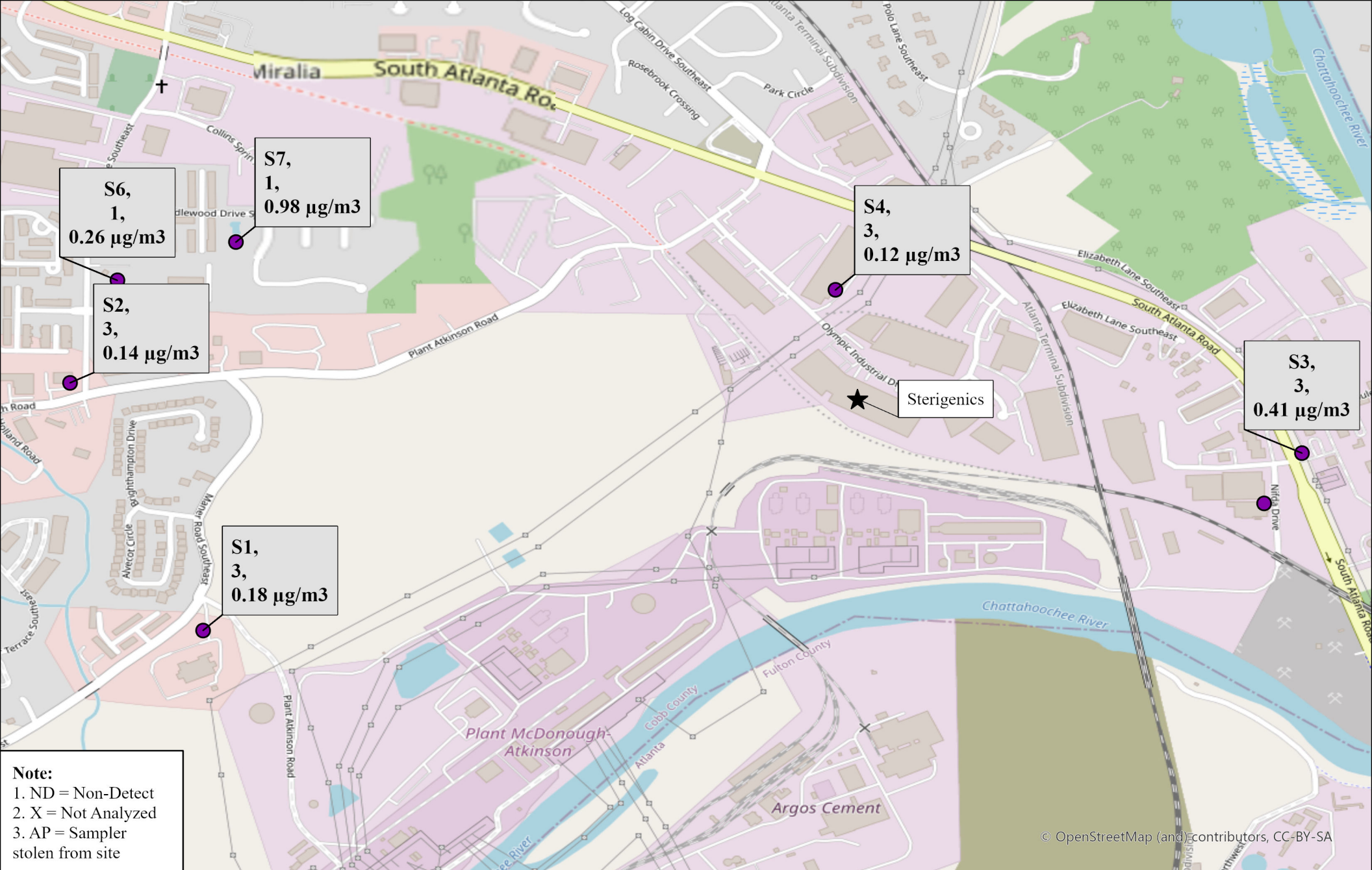
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



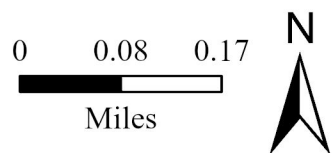
GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



Ethylene Oxide Sampling
Cobb 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



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