



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

EPD Director's Office

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

December 8, 2020

MEMORANDUM

To: Karen Hays, Air Branch Chief KH

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Fulton September 06 – September 24, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of September 06, 2020 – September 24, 2020 in the south Fulton area to characterize the EtO concentrations. The samples were sent to Eastern Research Group (ERG) for analysis. The Qualifier code of “2” is applied to samples to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised. Qualifier code “D-F” is given by ERG to indicate duplicate exceeds Data Quality Objectives (DQO) criteria. Please note that ERG is now providing values for levels below the detection limit.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
F1	09/06/2020	2	0.44
F1	09/12/2020		0.11
F1	09/18/2020		0.65
F1	09/24/2020		0.40
F2	09/06/2020	2	1.04
F2	09/12/2020		1.64
F2	09/18/2020	D-F	3.61
F2	09/24/2020		0.23
F2 QA	09/18/2020	D-F	2.31
F3	09/06/2020	2	4.33
F3	09/12/2020	2	2.87
F3	09/18/2020		5.90
F3	09/24/2020	2	1.63

If you have any questions, please let me know.

DGO/do



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

October 26, 2020

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

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 09/23/20 12:49 through 10/02/20 14:40.

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: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
F1	0092333-01	Air	09/06/20 23:59	09/23/20 12:49
F2	0092333-02	Air	09/06/20 23:59	09/23/20 12:49
F3	0092333-03	Air	09/06/20 23:59	09/23/20 12:49
F1	0092333-04	Air	09/12/20 23:59	09/23/20 12:49
F2	0092333-05	Air	09/12/20 23:59	09/23/20 12:49
F3	0092333-06	Air	09/12/20 23:59	09/23/20 12:49
F2	0092510-01	Air	09/18/20 23:59	09/25/20 13:04
F3	0092510-02	Air	09/18/20 23:59	09/25/20 13:04
F2 QA	0092510-03	Air	09/18/20 23:59	09/25/20 13:04
F1	0092838-01	Air	09/18/20 23:59	09/28/20 10:33
F1	0100212-01	Air	09/24/20 23:59	10/02/20 14:40
F2	0100212-02	Air	09/24/20 23:59	10/02/20 14:40
F3	0100212-03	Air	09/24/20 23:59	10/02/20 14:40



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FILE #: 4222.00
 REPORTED: 10/26/20 10:59
 SUBMITTED: 09/23/20 to 10/02/20
 AQS SITE CODE:
 SITE CODE: Fulton

Description: F1	Lab ID: 0092333-01 ✓	Sampled: 09/06/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg	Canister #: 5119 ✓	Received: 09/23/20 12:49 ✓
Comments: Received at ambient pressure		Analyzed: 09/24/20 21:14

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	0.246	0.44		0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 0092333-02 ✓	Sampled: 09/06/20 23:59 ✓
Pressure @ Receipt: 2.00" Hg ✓	Canister #: SAT035 ✓	Received: 09/23/20 12:49
Comments:		Analyzed: 09/24/20 22:09

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	0.575	1.04	✓	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F3	Lab ID: 0092333-03 ✓	Sampled: 09/06/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: SAT157	Received: 09/23/20 12:49
Comments: Received at ambient pressure ✓		Analyzed: 09/24/20 23:04

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	2.40	4.33 ✓		0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F1	Lab ID: 0092333-04 ✓	Sampled: 09/12/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 19278 ✓	Received: 09/23/20 12:49
Comments: Received at ambient pressure		Analyzed: 09/25/20 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	0.0627	0.11	✓	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 0092333-05 ✓	Sampled: 09/12/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: AZ37 ✓	Received: 09/23/20 12:49
Comments: Received at ambient pressure		Analyzed: 09/25/20 03:37

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	0.908	1.64	✓	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F3	Lab ID: 0092333-06 ✓	Sampled: 09/12/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: AZ45	Received: 09/23/20 12:49
Comments: Received at ambient pressure ✓		Analyzed: 09/25/20 04:32

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	1.59	2.87 ✓		0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 0092510-01 ✓	Sampled: 09/18/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 5135 ✓	Received: 09/25/20 13:04
Comments:		Analyzed: 10/07/20 01:28

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	2.00	3.61 ✓	D-F	0.0285



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REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F3	Lab ID: 0092510-02 ✓	Sampled: 09/18/20 23:59 ✓
Pressure @ Receipt: 5.50" Hg ✓	Canister #: 19280 ✓	Received: 09/25/20 13:04
Comments:		Analyzed: 10/07/20 03:17

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	3.27	5.90	✓	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F2 QA	Lab ID: 0092510-03 ✓	Sampled: 09/18/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 35143 ✓	Received: 09/25/20 13:04
Comments: Received at ambient pressure		Analyzed: 10/07/20 04:12

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	1.28	2.31 ✓	D-F	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F1	Lab ID: 0092838-01 ✓	Sampled: 09/18/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 5132 ✓	Received: 09/28/20 10:33 ✓
Comments: Received at ambient pressure		Analyzed: 10/07/20 00:33

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	0.362	0.65	✓	0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F1	Lab ID: 0100212-01 ✓	Sampled: 09/24/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 2240 ✓	Received: 10/02/20 14:40
Comments: Received at ambient pressure		Analyzed: 10/14/20 17:41

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/m³</u>		<u>ppbv</u>
Ethylene oxide	0.221	0.40	✓	0.0285



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ATTN: Ms. Jaime Gore

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

FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 0100212-02 ✓	Sampled: 09/24/20 23:59 ✓
Pressure @ Receipt: 0.00" Hg ✓	Canister #: 19283 ✓	Received: 10/02/20 14:40
Comments: Received at ambient pressure		Analyzed: 10/14/20 18:36

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	0.127	0.23 ✓		0.0285



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FILE #: 4222.00

REPORTED: 10/26/20 10:59

SUBMITTED: 09/23/20 to 10/02/20

AQS SITE CODE:

SITE CODE: Fulton

Description: F3	Lab ID: 0100212-03 ✓	Sampled: 09/24/20 23:59 ✓
Pressure @ Receipt: 7.50" Hg ✓	Canister #: SAT101 ✓	Received: 10/02/20 14:40
Comments:		Analyzed: 10/14/20 19:31

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	0.904	1.63	✓	0.0285



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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: 10/26/20 10:59
SUBMITTED: 09/23/20 to 10/02/20
AQS SITE CODE:
SITE CODE: Fulton

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

Batch B0I2408 - Summa Canister Prep

Blank (B0I2408-BLK1)

Prepared & Analyzed: 09/24/20

Ethylene oxide	ND	ppbv				U
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Batch B0J0610 - Summa Canister Prep

Blank (B0J0610-BLK1)

Prepared & Analyzed: 10/06/20

Ethylene oxide	ND	ppbv				U
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Duplicate (B0J0610-DUP1)

Source: 0092510-01

Prepared: 09/18/20 Analyzed: 10/07/20

Ethylene oxide	2.29	ppbv	2.00	13.4	25	
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Duplicate (B0J0610-DUP2)

Source: 0092510-03

Prepared: 09/18/20 Analyzed: 10/07/20

Ethylene oxide	1.05	ppbv	1.28	19.6	25	
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Batch B0J1405 - Summa Canister Prep

Blank (B0J1405-BLK1)

Prepared & Analyzed: 10/14/20

Ethylene oxide	ND	ppbv				U
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FILE #: 4222.00
REPORTED: 10/26/20 10:59
SUBMITTED: 09/23/20 to 10/02/20
AQS SITE CODE:
SITE CODE: Fulton

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

Sequence 2009060

Calibration Check (2009060-CCV1)

Prepared & Analyzed: 09/24/20

Ethylene oxide	2.93	ppbv	17.1	30.00
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Sequence 2010014

Calibration Check (2010014-CCV1)

Prepared & Analyzed: 10/06/20

Ethylene oxide	2.49	ppbv	0.6	30.00
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Sequence 2010029

Calibration Check (2010029-CCV1)

Prepared & Analyzed: 10/14/20

Ethylene oxide	2.90	ppbv	17.3	30.00
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CERTIFICATE OF ANALYSIS

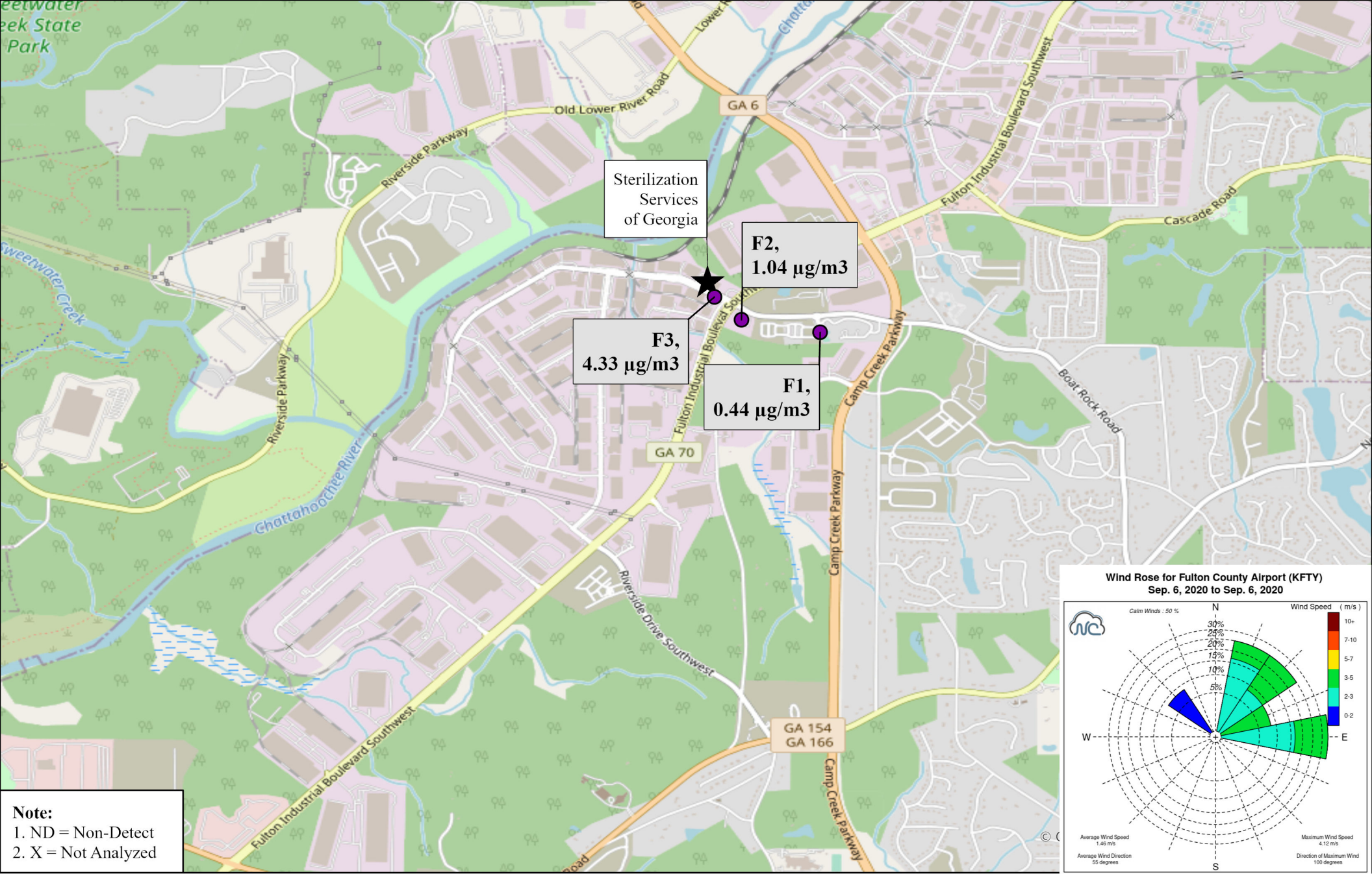
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
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AQS SITE CODE:
SITE CODE: Fulton

Notes and Definitions

U Under Detection Limit
D-F Duplicate exceeds DQO criteria.
ND Analyte NOT DETECTED
NR Not Reported
MDL Method Detection Limit
RPD Relative Percent Difference

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.

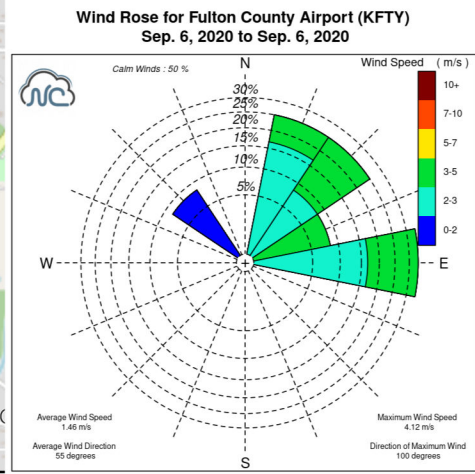


Sterilization
Services
of Georgia

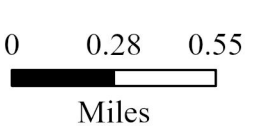
F2,
1.04 µg/m³

F3,
4.33 µg/m³

F1,
0.44 µg/m³



Note:
1. ND = Non-Detect
2. X = Not Analyzed

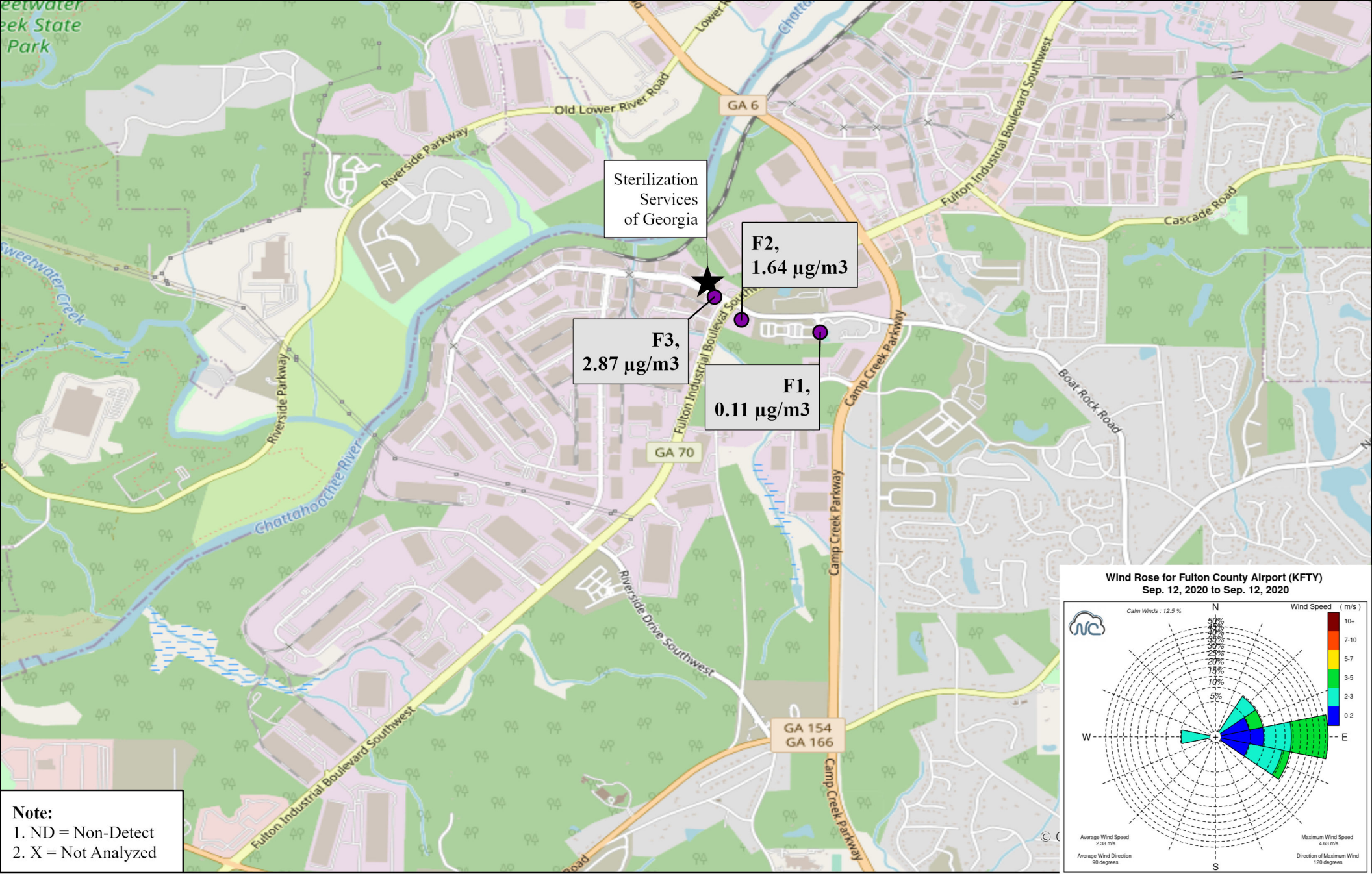


Site ID, Concentration (µg/m³)

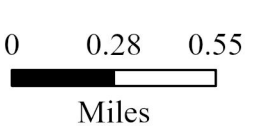
Ethylene Oxide Sampling
Fulton County, GA

09/06/2020
Sampled By: Georgia Environmental Protection Division
Analyzed By: Eastern Research Group





Note:
 1. ND = Non-Detect
 2. X = Not Analyzed

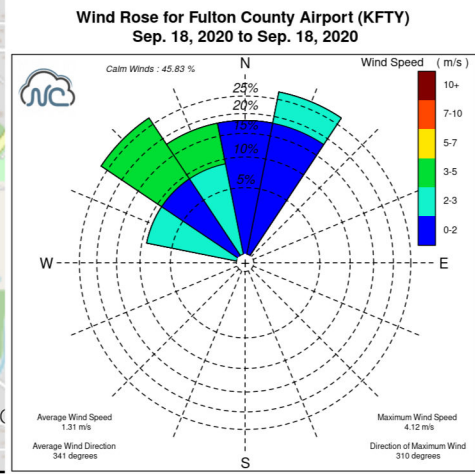
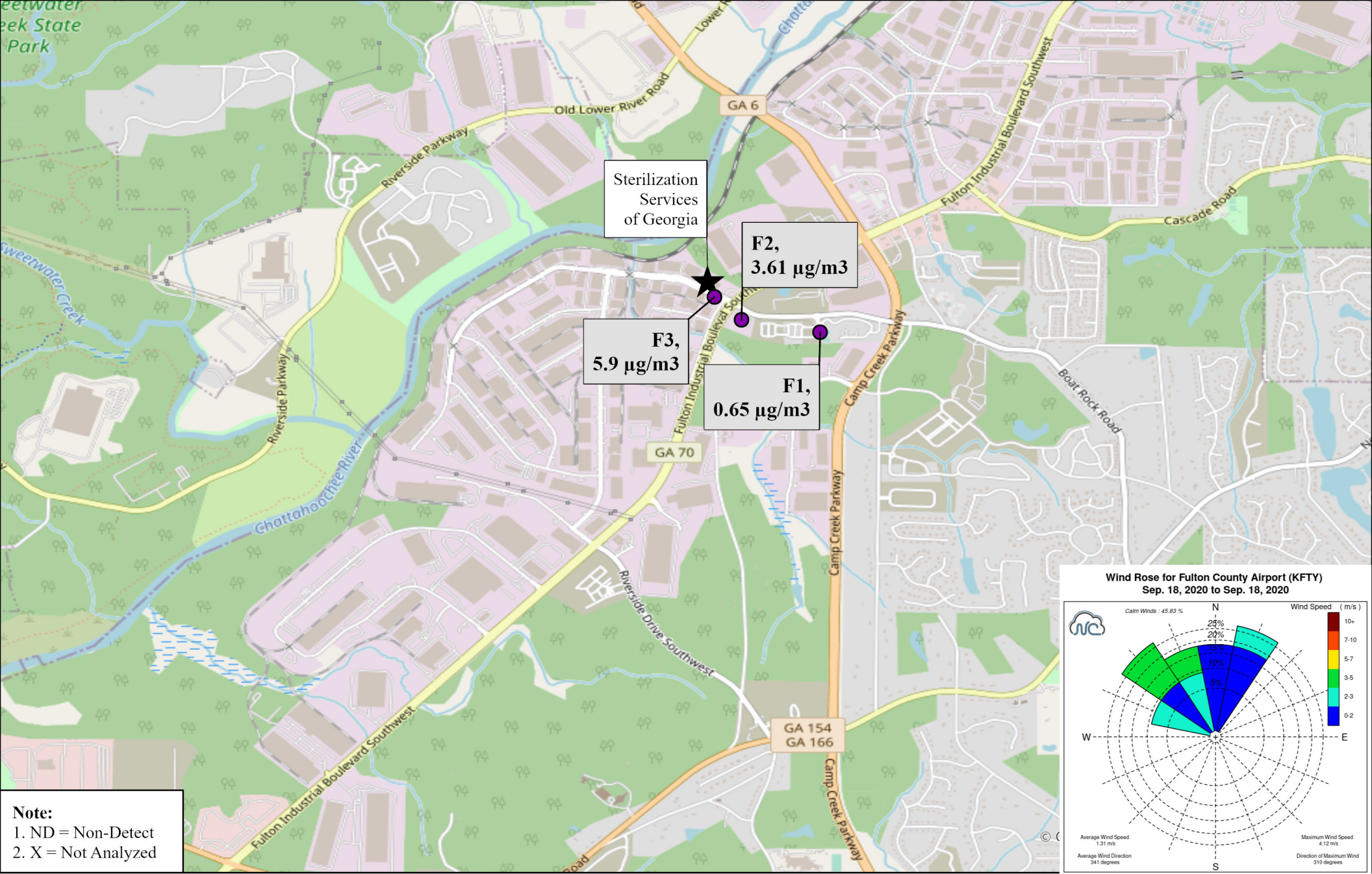


Site ID, Concentration (µg/m³)

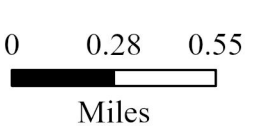
Ethylene Oxide Sampling
 Fulton County, GA

09/12/2020
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group





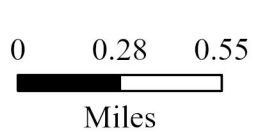
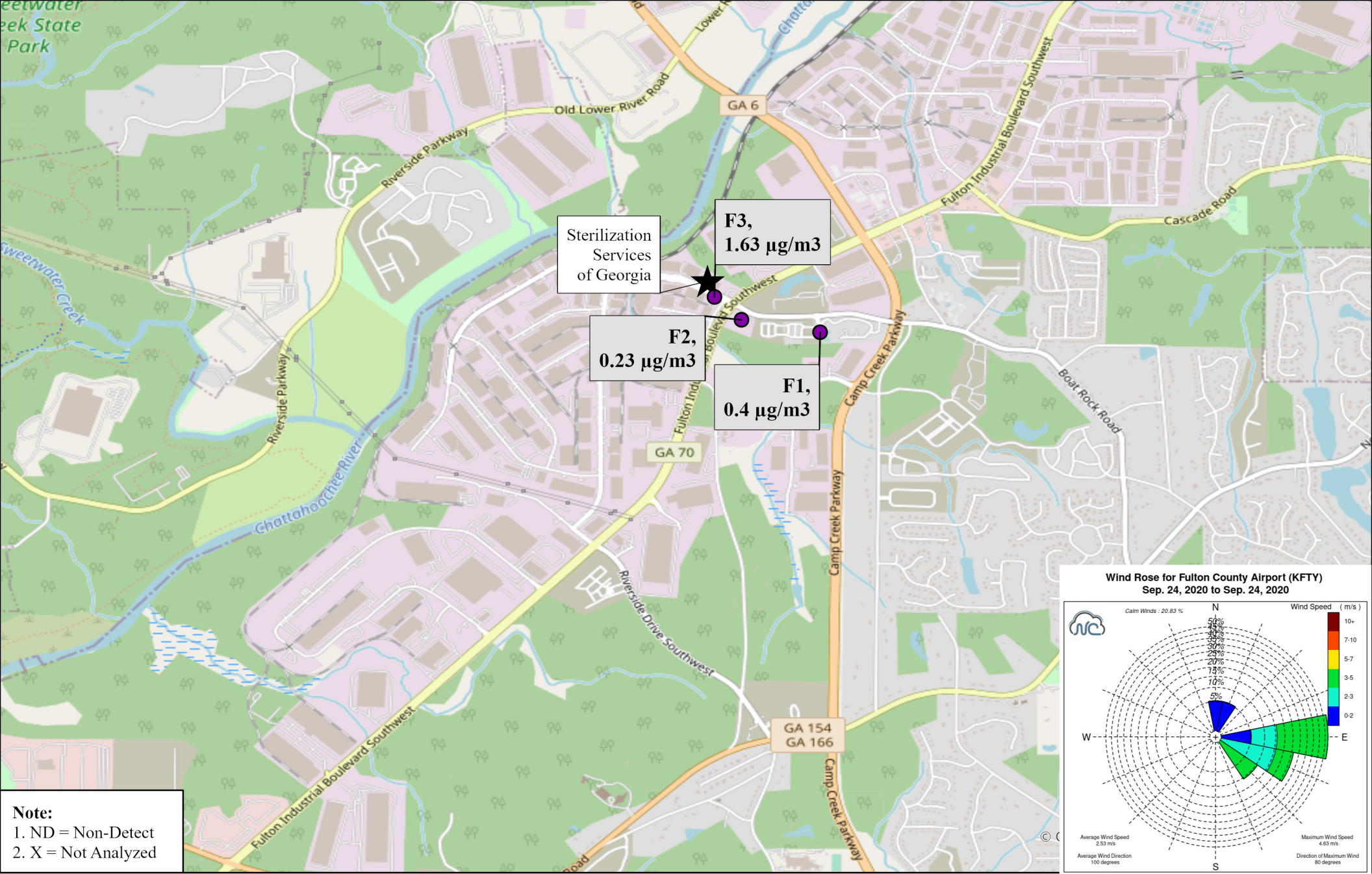
Note:
 1. ND = Non-Detect
 2. X = Not Analyzed



Site ID, Concentration (µg/m3)

Ethylene Oxide Sampling
 Fulton County, GA

09/18/2020
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group



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

Ethylene Oxide Sampling
 Fulton County, GA

09/24/2020
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group

