

October 13, 2022

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: James Boylan, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Fulton August 26, 2021-September 19, 2021 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of August 26, 2021-September 19, 2021, 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. Null code "AA" is applied to indicate Sample Pressure was out of limits. Please note that ERG is now providing values for levels below the detection limit. Sampling at site F1 was discontinued at the end of August 2021 except for once a month collecting a comparison spatial sample.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
F1-SA	08/26/2021	2	0.22
F2	08/26/2021	LK	0.24
F2	09/07/2021		0.26
F2	09/19/2021		AA
F2 QA	09/07/2021	2	0.28

If you have any questions, please let me know.

DGO/do



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

October 29, 2021

Ms. Jaime Gore
GA Ambient Monitoring Program
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 09/03/21 12:53 through 10/07/21 12:42.

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

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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: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

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-SA	1090319-01	Air	08/26/21 23:59	09/03/21 12:53
F2	1090319-02	Air	08/26/21 23:59	09/03/21 12:53
F2	1091619-01	Air	09/07/21 23:59	09/16/21 11:29
F2 QA	1091619-02	Air	09/07/21 23:59	09/16/21 11:29
Fulton FB	1091619-03	Air	09/14/21 23:59	09/16/21 11:29
F2	1100617-01	Air	09/19/21 23:59	10/06/21 13:36



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FILE #: 4222.00

REPORTED: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F1-SA	Lab ID: 1090319-01 ✓	Sampled: 08/26/21 23:59 ✓
Pressure @ Receipt: 7.50" Hg ✓	Canister #: 110252 ✓	Received: 09/03/21 12:53
Comments:		Analyzed: 09/16/21 00:58

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	0.124	0.22 ✓		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 1090319-02 ✓	Sampled: 08/26/21 23:59 ✓
Pressure @ Receipt: 5.50" Hg ✓	Canister #: 35151 ✓	Received: 09/03/21 12:53
Comments:		Analyzed: 09/16/21 01:59

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	0.134	0.24 ✓		0.0261
				10/13/2022 LK flag added with updated information from ERG <i>dgo</i>



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FILE #: 4222.00

REPORTED: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2	Lab ID: 1091619-01 ✓	Sampled: 09/07/21 23:59 ✓
Pressure @ Receipt: 4.50" Hg ✓	Canister #: 114386 ✓	Received: 09/16/21 11:29
Comments:		Analyzed: 09/29/21 19:36

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	0.146	0.26 ✓		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2 QA **Lab ID:** 1091619-02 ✓ **Sampled:** 09/07/21 23:59 ✓
Pressure @ Receipt: 7.50" Hg ✓ **Canister #:** 110258 ✓ **Received:** 09/16/21 11:29
Comments: **Analyzed:** 09/29/21 21:38

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	0.157	0.28 ✓		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:24

SUBMITTED: 09/03/21 to 10/06/21

AQS SITE CODE:

SITE CODE: Fulton

Description: Fulton FB

Lab ID: 1091619-03

Sampled: 09/14/21 23:59

Pressure @ Receipt: 29.50" Hg

Canister #: 18832

Received: 09/16/21 11:29

Comments: Field Blank

Analyzed: 09/29/21 16:33

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	ND	ND	U	0.0261



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 4244 International Pkwy, Suite 120
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FILE #: 4222.00
 REPORTED: 10/29/21 14:24
 SUBMITTED: 09/03/21 to 10/06/21
 AQS SITE CODE:
 SITE CODE: Fulton

Description: F2 Lab ID: 1100617-01 ✓
 Pressure @ Receipt: 10.00 "Hg ✓ Canister #: 111219 ✓
 Comments: ✓
 Sampled: 09/19/21 23:59 ✓
 Received: 10/06/21 13:36
 Analyzed: 10/08/21 02:14

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	0.297	0.54	✓	0.0261



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FILE #: 4222.00
REPORTED: 10/29/21 14:24
SUBMITTED: 09/03/21 to 10/06/21
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 B1I1505 - Summa Canister Prep

Blank (B1I1505-BLK1)

Prepared & Analyzed: 09/15/21

Ethylene oxide	ND	ppbv				U
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Batch B1I2906 - Summa Canister Prep

Blank (B1I2906-BLK1)

Prepared & Analyzed: 09/29/21

Ethylene oxide	ND	ppbv				U
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Duplicate (B1I2906-DUP1)

Source: 1091619-01

Prepared: 09/07/21 Analyzed: 09/29/21

Ethylene oxide	0.125	ppbv	0.15	15.5	25	
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Duplicate (B1I2906-DUP2)

Source: 1091619-02

Prepared: 09/07/21 Analyzed: 09/29/21

Ethylene oxide	0.147	ppbv	0.16	6.78	25	
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Batch B1J0704 - Summa Canister Prep

Blank (B1J0704-BLK1)

Prepared & Analyzed: 10/07/21

Ethylene oxide	ND	ppbv				U
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PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 10/29/21 14:24
SUBMITTED: 09/03/21 to 10/06/21
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 2109045

Calibration Check (2109045-CCV1)

Prepared & Analyzed: 09/15/21

Ethylene oxide	2.41	ppbv	-3.7	30.00
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Sequence 2109072

Calibration Check (2109072-CCV1)

Prepared & Analyzed: 09/29/21

Ethylene oxide	2.51	ppbv	3.7	30.00
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Sequence 2110016

Calibration Check (2110016-CCV1)

Prepared & Analyzed: 10/07/21

Ethylene oxide	3.02	ppbv	24.9	30.00
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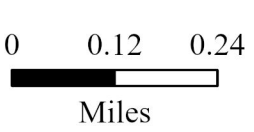
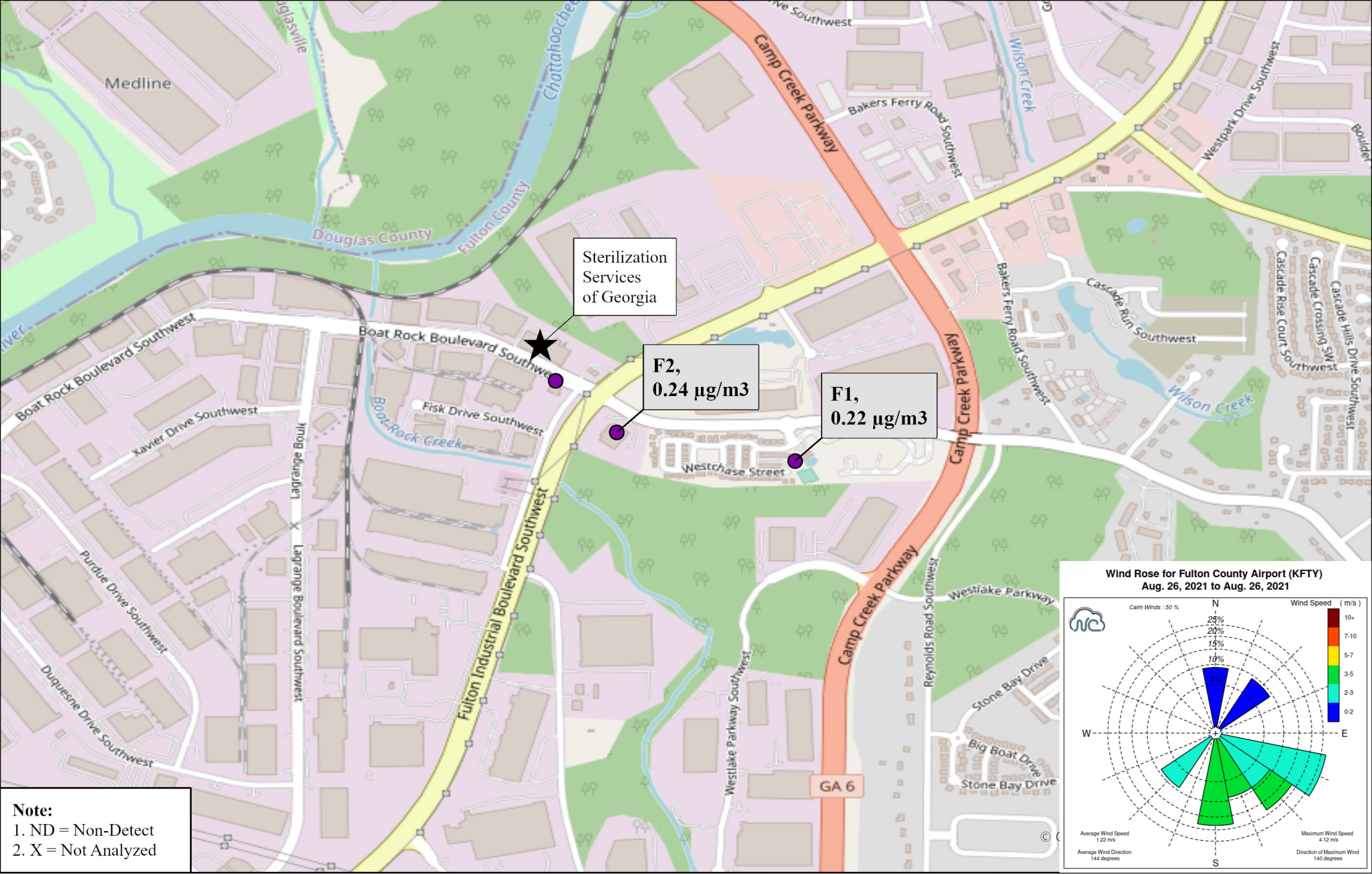
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FILE #: 4222.00
REPORTED: 10/29/21 14:24
SUBMITTED: 09/03/21 to 10/06/21
AQS SITE CODE:
SITE CODE: Fulton

Notes and Definitions

U Under Detection Limit
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.

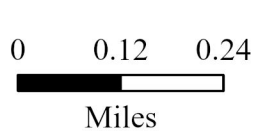
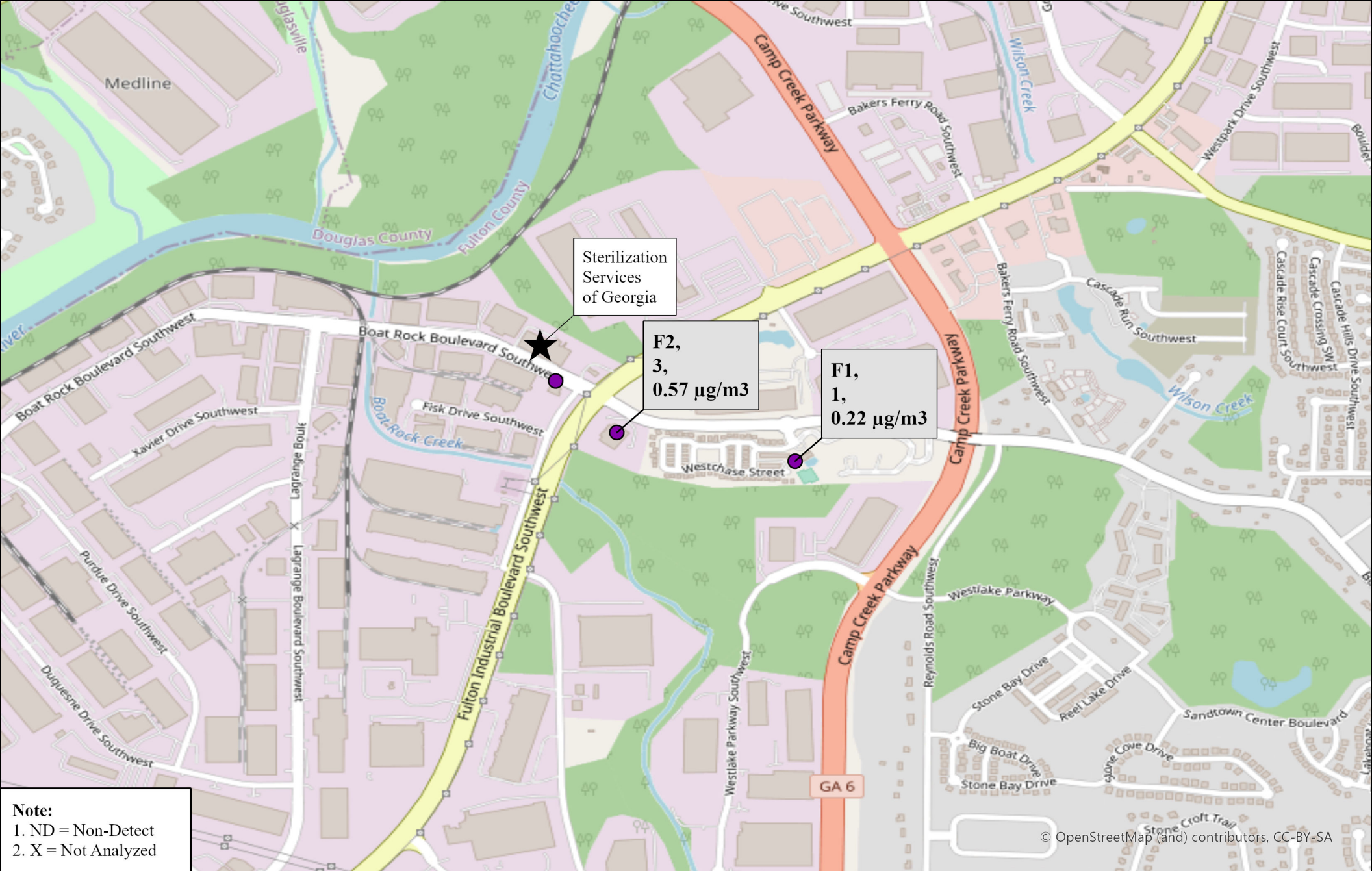


Site ID, Concentration (µg/m3)

Ethylene Oxide Sampling
 Fulton County, GA

08/26/2021
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group





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

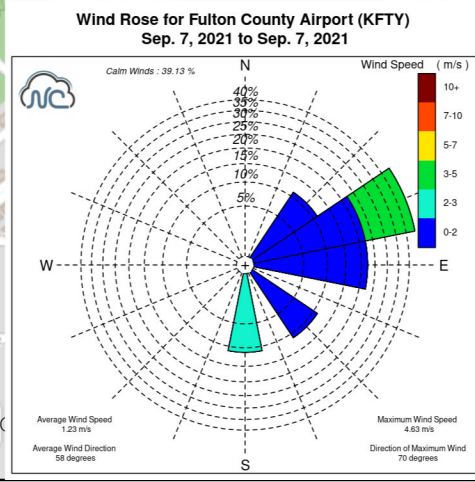
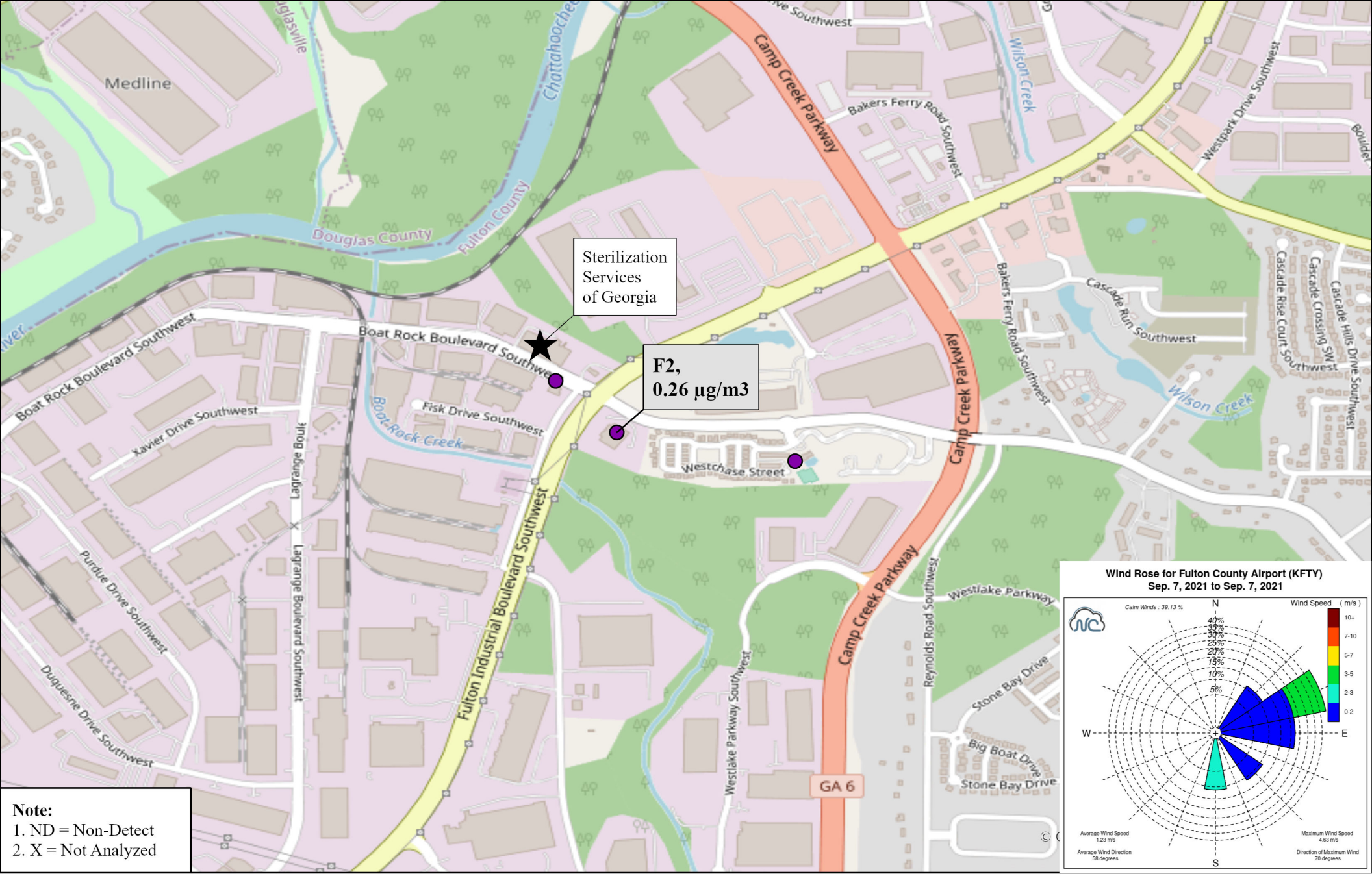
Ethylene Oxide Sampling
 Fulton County, GA

August 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

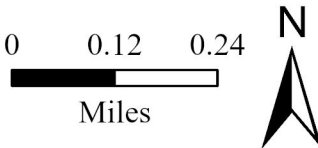


GEORGIA
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



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

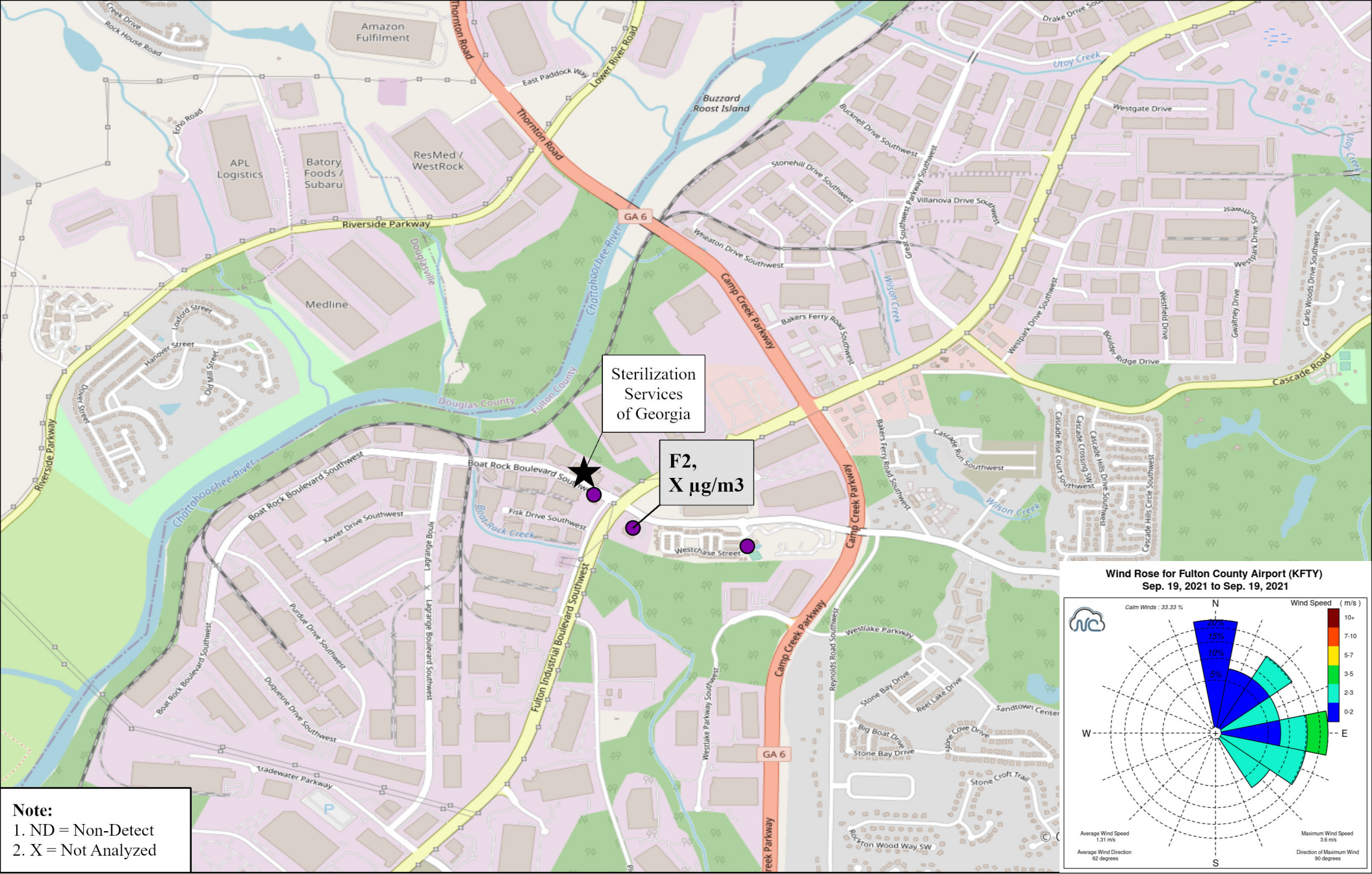


Site ID, Concentration (µg/m3)

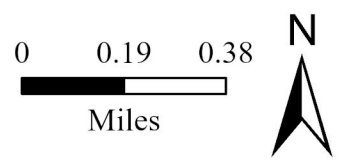
Ethylene Oxide Sampling
 Fulton County, GA

09/07/2021
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group





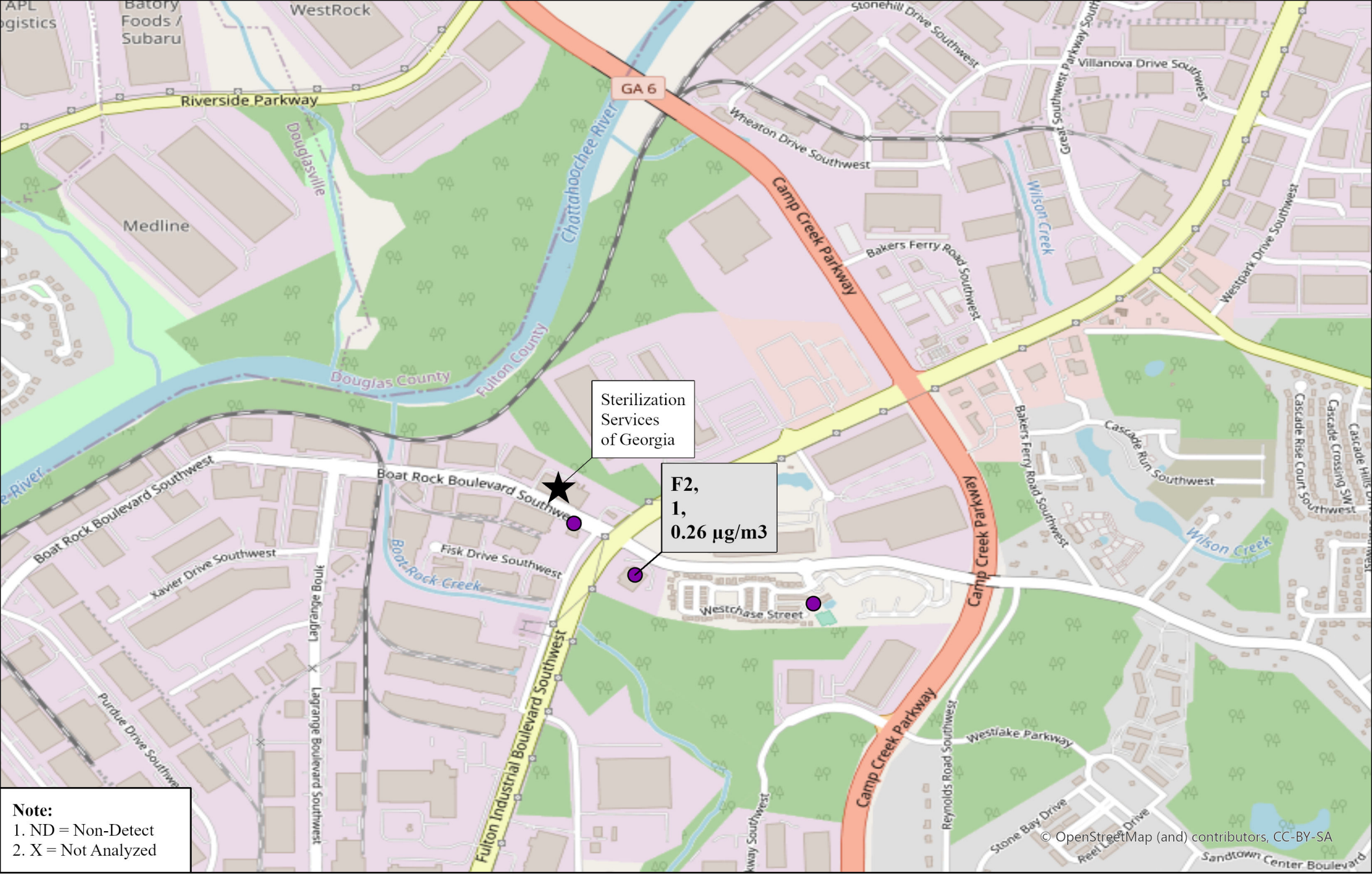
Note:
 1. ND = Non-Detect
 2. X = Not Analyzed



Site ID, Concentration (µg/m³)

Ethylene Oxide Sampling
 Fulton, GA
 09/19/2021
 Sampled By: Georgia Environmental Protection Division
 Analyzed By: Eastern Research Group

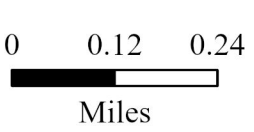




Sterilization Services of Georgia

F2,
1,
0.26 µg/m3

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



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

Ethylene Oxide Sampling
Fulton County, GA

September 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

