

EPD Director's Office

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

September 1, 2021

MEMORANDUM

To: Karen Hays, Air Branch Chief

Through: James Boylan, Assistant Branch Chief *JB*

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Fulton April 10, 2021 – April 28, 2021 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of April 10, 2021 – April 28, 2021 in the south Fulton area to characterize the EtO concentrations. The samples were sent to Eastern Research Group (ERG) for analysis. Qualifier code "LK" was given by ERG to indicate that the reported value for identified analyte may be biased high. 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 "BI" was given indicating sample was lost or damaged in transit. Please note that ERG is now providing values for levels below the detection limit.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
F1	04/10/2021		0.12
F1	04/16/2021		0.07
F1	04/22/2021		BI
F1	04/28/2021	2	0.52
F2	04/10/2021	2, LK	0.52
F2	04/16/2021	2	0.26
F2	04/22/2021		0.18
F2	04/28/2021	2	0.42
F2 QA	04/22/2021	2	0.19
F4	04/10/2021		0.70
F4	04/16/2021		0.10
F4	04/22/2021	2	0.09
F4	04/28/2021		0.40

If you have any questions, please let me know.

DGO/do



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

June 09, 2021

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 04/22/21 12:53 through 05/17/21 09:50.

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: 06/09/21 12:16
SUBMITTED: 04/22/21 to 05/17/21
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	1042216-03	Air	04/10/21 23:59	04/22/21 12:53
F2	1042216-04	Air	04/10/21 23:59	04/22/21 12:53
F4	1042216-05	Air	04/10/21 23:59	04/22/21 12:53
F1	1042934-01	Air	04/16/21 23:59	04/29/21 11:40
F2	1042934-02	Air	04/16/21 23:59	04/29/21 11:40
F4	1042934-03	Air	04/16/21 23:59	04/29/21 11:40
F2	1043023-01	Air	04/22/21 23:59	04/30/21 12:26
F2-QA	1050322-02	Air	04/22/21 23:59	04/30/21 11:28
F4	1050322-03	Air	04/22/21 23:59	04/30/21 11:28
Fulton FB	1050524-01	Air	04/27/21 23:59	05/05/21 11:06
F1	1051247-01	Air	04/28/21 23:59	05/12/21 13:36
F4	1051247-02	Air	04/28/21 23:59	05/12/21 13:36
F2	1051721-01	Air	04/28/21 23:59	05/17/21 09:50



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F1

Lab ID: 1042216-03

Sampled: 04/10/21 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: 19287

Received: 04/22/21 12:53

Comments:

Analyzed: 04/28/21 23:46

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/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0663	0.12		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2

Lab ID: 1042216-04

Sampled: 04/10/21 23:59

Pressure @ Receipt: 8.00" Hg

Canister #: AZ52

Received: 04/22/21 12:53

Comments:

Analyzed: 04/29/21 00:47

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	0.290	0.52	LK	0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F4

Lab ID: 1042216-05

Sampled: 04/10/21 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: SAT042

Received: 04/22/21 12:53

Comments:

Analyzed: 04/29/21 01:48

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	0.389	0.70		0.0261



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FILE #: 4222.00
REPORTED: 06/09/21 12:16
SUBMITTED: 04/22/21 to 05/17/21
AQS SITE CODE:
SITE CODE: Fulton

Description: F1	Lab ID: 1042934-01	Sampled: 04/16/21 23:59
Pressure @ Receipt: 4.50" Hg	Canister #: 18821	Received: 04/29/21 11:40
Comments:		Analyzed: 05/12/21 06:44

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	0.0376	0.07		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2

Lab ID: 1042934-02

Sampled: 04/16/21 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: 18882

Received: 04/29/21 11:40

Comments:

Analyzed: 05/12/21 07:45

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	0.142	0.26		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F4

Lab ID: 1042934-03

Sampled: 04/16/21 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: 2527

Received: 04/29/21 11:40

Comments:

Analyzed: 05/12/21 18:24

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/m³</u>		<u>ppbv</u>
Ethylene oxide	0.0536	0.10		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2

Lab ID: 1043023-01

Sampled: 04/22/21 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: A21034

Received: 04/30/21 12:26

Comments:

Analyzed: 05/13/21 21:48

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	0.0991	0.18		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2-QA

Lab ID: 1050322-02

Sampled: 04/22/21 23:59

Pressure @ Receipt: 0.20" Hg

Canister #: 114366

Received: 04/30/21 11:28

Comments:

Analyzed: 05/13/21 23:50

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	0.106	0.19		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F4

Lab ID: 1050322-03

Sampled: 04/22/21 23:59

Pressure @ Receipt: 0.10" Hg

Canister #: 33327

Received: 04/30/21 11:28

Comments:

Analyzed: 05/14/21 01:52

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	0.0522	0.09		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: Fulton FB

Lab ID: 1050524-01

Sampled: 04/27/21 23:59

Pressure @ Receipt: 30.0" Hg

Canister #: SAT029

Received: 05/05/21 11:06

Comments: Field Blank

Analyzed: 05/20/21 20:02

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	0.0236	0.04	U	0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F1

Lab ID: 1051247-01

Sampled: 04/28/21 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: A21052

Received: 05/12/21 13:36

Comments:

Analyzed: 05/20/21 11:01

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	0.287	0.52		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F4

Lab ID: 1051247-02

Sampled: 04/28/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 2240

Received: 05/12/21 13:36

Comments:

Analyzed: 05/20/21 12:01

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		0.0261



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FILE #: 4222.00

REPORTED: 06/09/21 12:16

SUBMITTED: 04/22/21 to 05/17/21

AQS SITE CODE:

SITE CODE: Fulton

Description: F2

Lab ID: 1051721-01

Sampled: 04/28/21 23:59

Pressure @ Receipt: 8.00" Hg

Canister #: A22328

Received: 05/17/21 09:50

Comments:

Analyzed: 05/20/21 22:05

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/m³</u>		<u>ppbv</u>
Ethylene oxide	0.232	0.42		0.0261



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FILE #: 4222.00
REPORTED: 06/09/21 12:16
SUBMITTED: 04/22/21 to 05/17/21
AQS SITE CODE:
SITE CODE: Fulton

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
<i>Batch B1D2808 - Summa Canister Prep</i>						
Blank (B1D2808-BLK1)			Prepared & Analyzed: 04/28/21			
Ethylene oxide	ND	ppbv				U
<i>Batch B1E1108 - Summa Canister Prep</i>						
Blank (B1E1108-BLK1)			Prepared & Analyzed: 05/11/21			
Ethylene oxide	ND	ppbv				U
<i>Batch B1E1206 - Summa Canister Prep</i>						
Blank (B1E1206-BLK1)			Prepared & Analyzed: 05/12/21			
Ethylene oxide	ND	ppbv				U
<i>Batch B1E1307 - Summa Canister Prep</i>						
Blank (B1E1307-BLK1)			Prepared & Analyzed: 05/13/21			
Ethylene oxide	ND	ppbv				U
Duplicate (B1E1307-DUP3)	Source: 1043023-01		Prepared: 04/22/21 Analyzed: 05/13/21			
Ethylene oxide	0.111	ppbv	0.10	11.0	25	
Duplicate (B1E1307-DUP4)	Source: 1050322-02		Prepared: 04/22/21 Analyzed: 05/14/21			
Ethylene oxide	0.102	ppbv	0.11	3.83	25	
<i>Batch B1E1908 - Summa Canister Prep</i>						
Blank (B1E1908-BLK1)			Prepared & Analyzed: 05/19/21			
Ethylene oxide	ND	ppbv				U
<i>Batch B1E2006 - Summa Canister Prep</i>						
Blank (B1E2006-BLK1)			Prepared & Analyzed: 05/20/21			
Ethylene oxide	ND	ppbv				U



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FILE #: 4222.00
REPORTED: 06/09/21 12:16
SUBMITTED: 04/22/21 to 05/17/21
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 2104053

Calibration Check (2104053-CCV1)

Prepared & Analyzed: 04/27/21

Ethylene oxide	3.00	ppbv	24.3	30.00
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Sequence 2104057

Calibration Check (2104057-CCV1)

Prepared & Analyzed: 04/28/21

Ethylene oxide	2.75	ppbv	13.7	30.00
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Sequence 2105022

Calibration Check (2105022-CCV1)

Prepared & Analyzed: 05/11/21

Ethylene oxide	2.09	ppbv	-13.4	30.00
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Sequence 2105025

Calibration Check (2105025-CCV1)

Prepared & Analyzed: 05/12/21

Ethylene oxide	2.09	ppbv	-13.7	30.00
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Sequence 2105029

Calibration Check (2105029-CCV1)

Prepared & Analyzed: 05/13/21

Ethylene oxide	2.07	ppbv	-14.3	30.00
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Sequence 2105048

Calibration Check (2105048-CCV1)

Prepared & Analyzed: 05/19/21

Ethylene oxide	2.16	ppbv	-10.7	30.00
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Sequence 2105053

Calibration Check (2105053-CCV1)

Prepared & Analyzed: 05/20/21

Ethylene oxide	2.17	ppbv	-10.2	30.00
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CERTIFICATE OF ANALYSIS

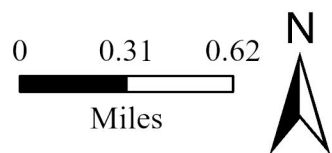
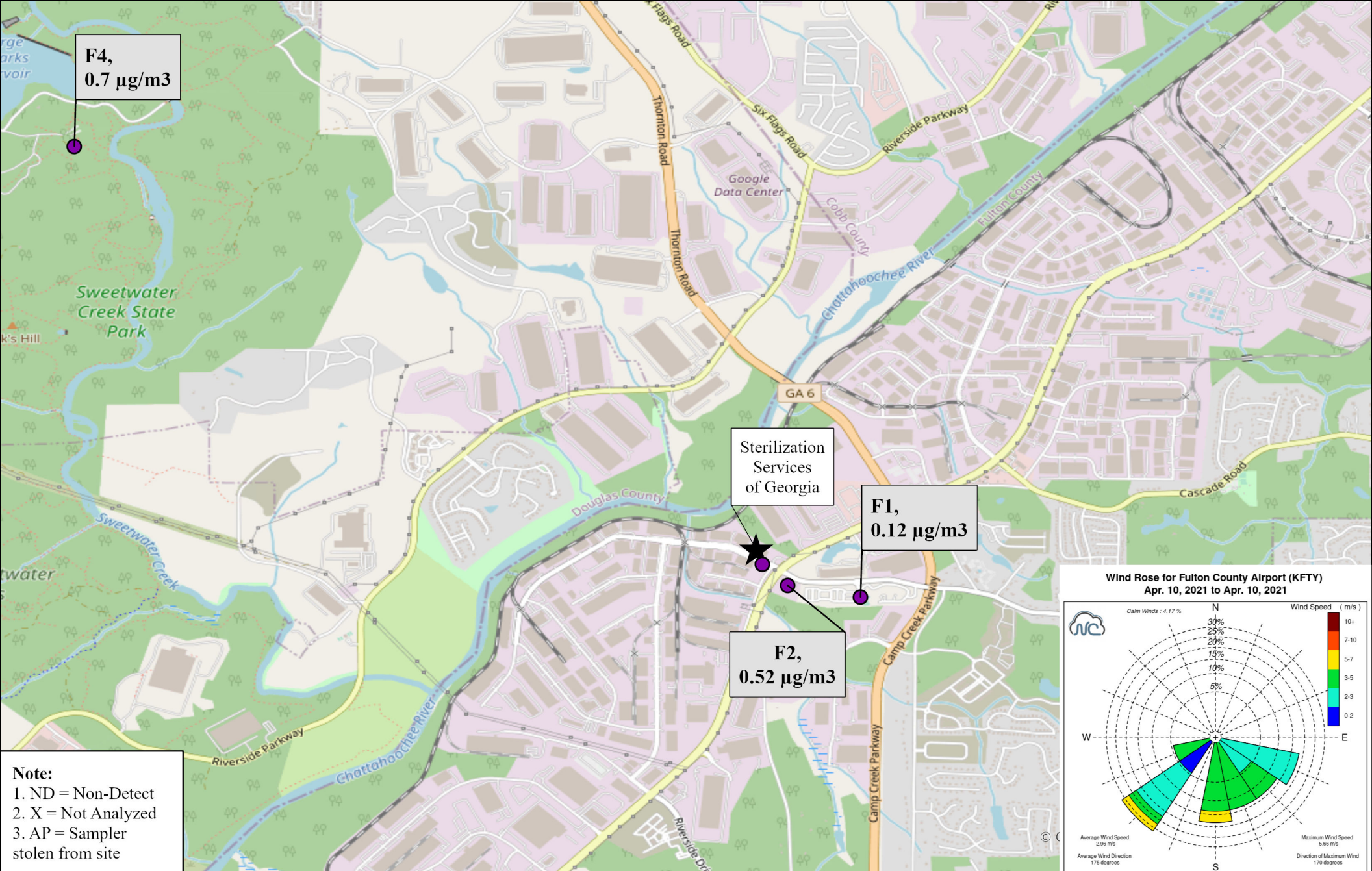
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
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ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912 **FAX:** (919) 541-0516

FILE #: 4222.00
REPORTED: 06/09/21 12:16
SUBMITTED: 04/22/21 to 05/17/21
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
LK	Analyte Identified: Reported Value May Be Biased High

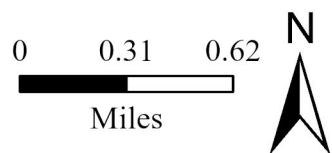
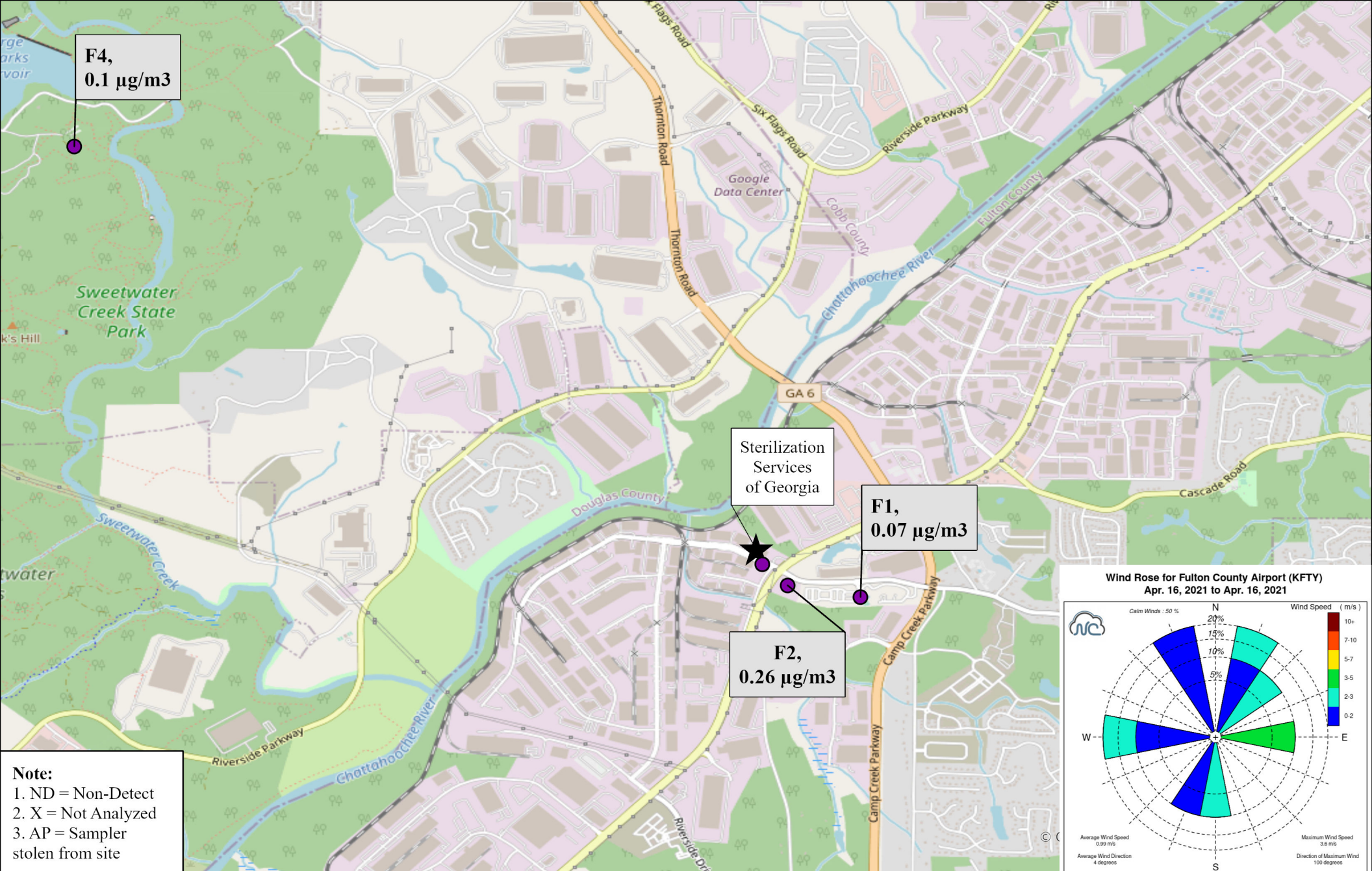
Note: This test is accredited under the 2016 TNI Standard; however the following analytes are not accredited: acetylene, bromodichloroethane, dichlorotetrafluoromethane, ethyl tert butyl ether, n-octane, tert amyl methyl ether, trichlorofluoroethane, and bromochloromethane.



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

Ethylene Oxide Sampling
Fulton County, GA

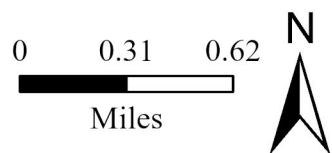
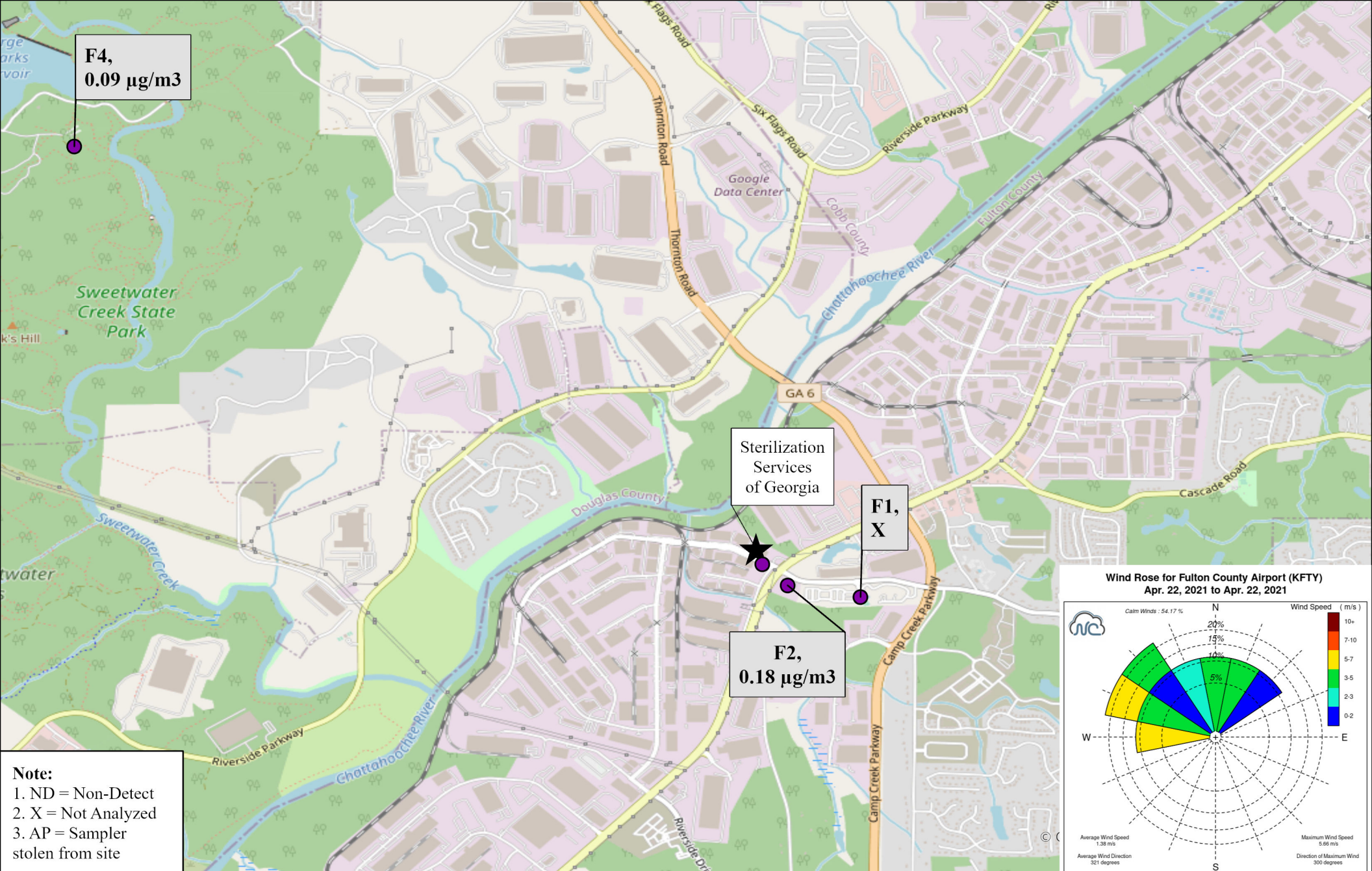
04/10/2021
Sampled By: Georgia Environmental Protection Division
Analyzed By: Eastern Research Group



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

Ethylene Oxide Sampling
Fulton County, GA

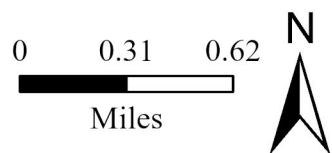
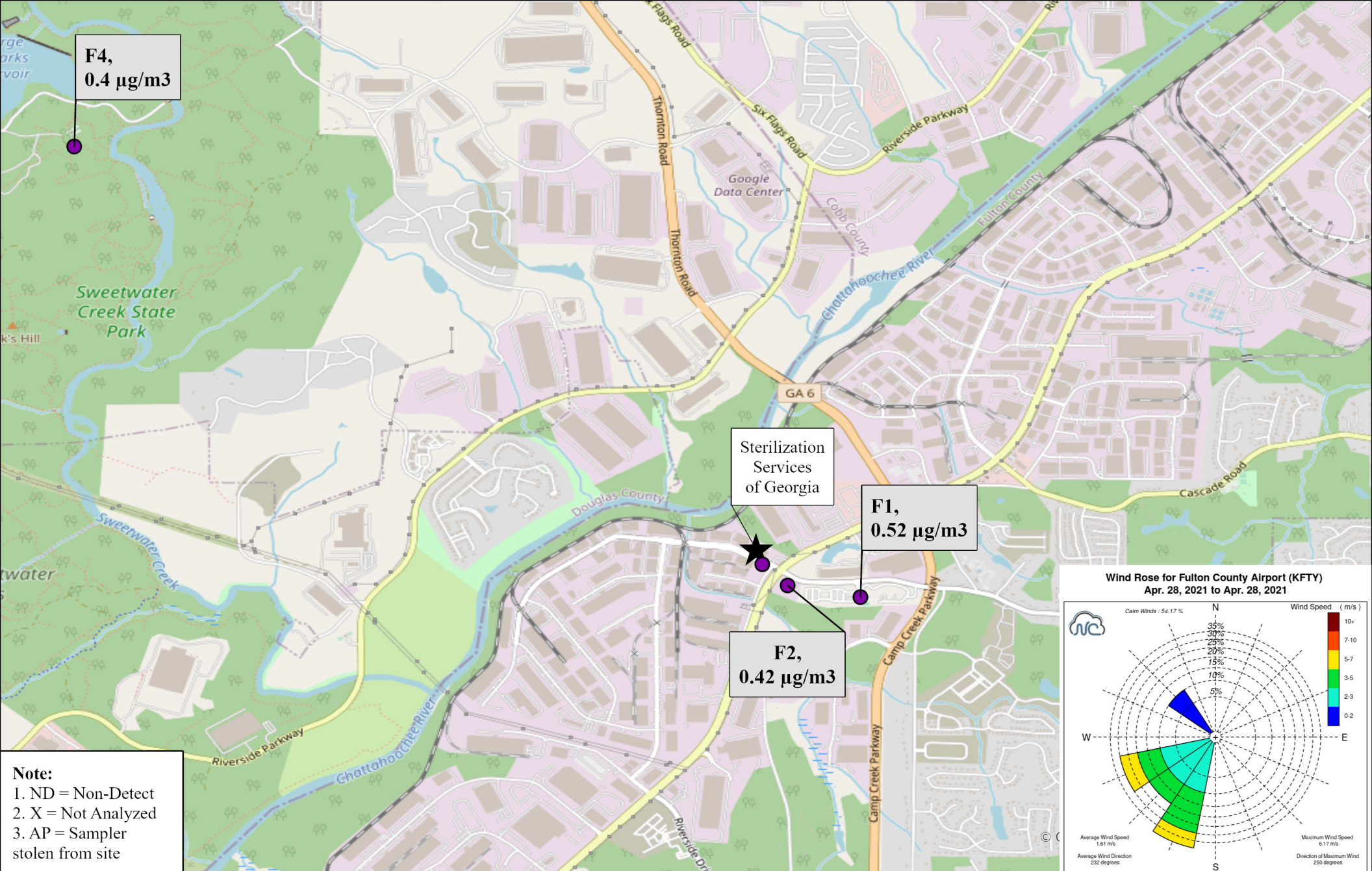
04/16/2021
Sampled By: Georgia Environmental Protection Division
Analyzed By: Eastern Research Group



Site ID, Concentration (µg/m3)

Ethylene Oxide Sampling
Fulton County, GA

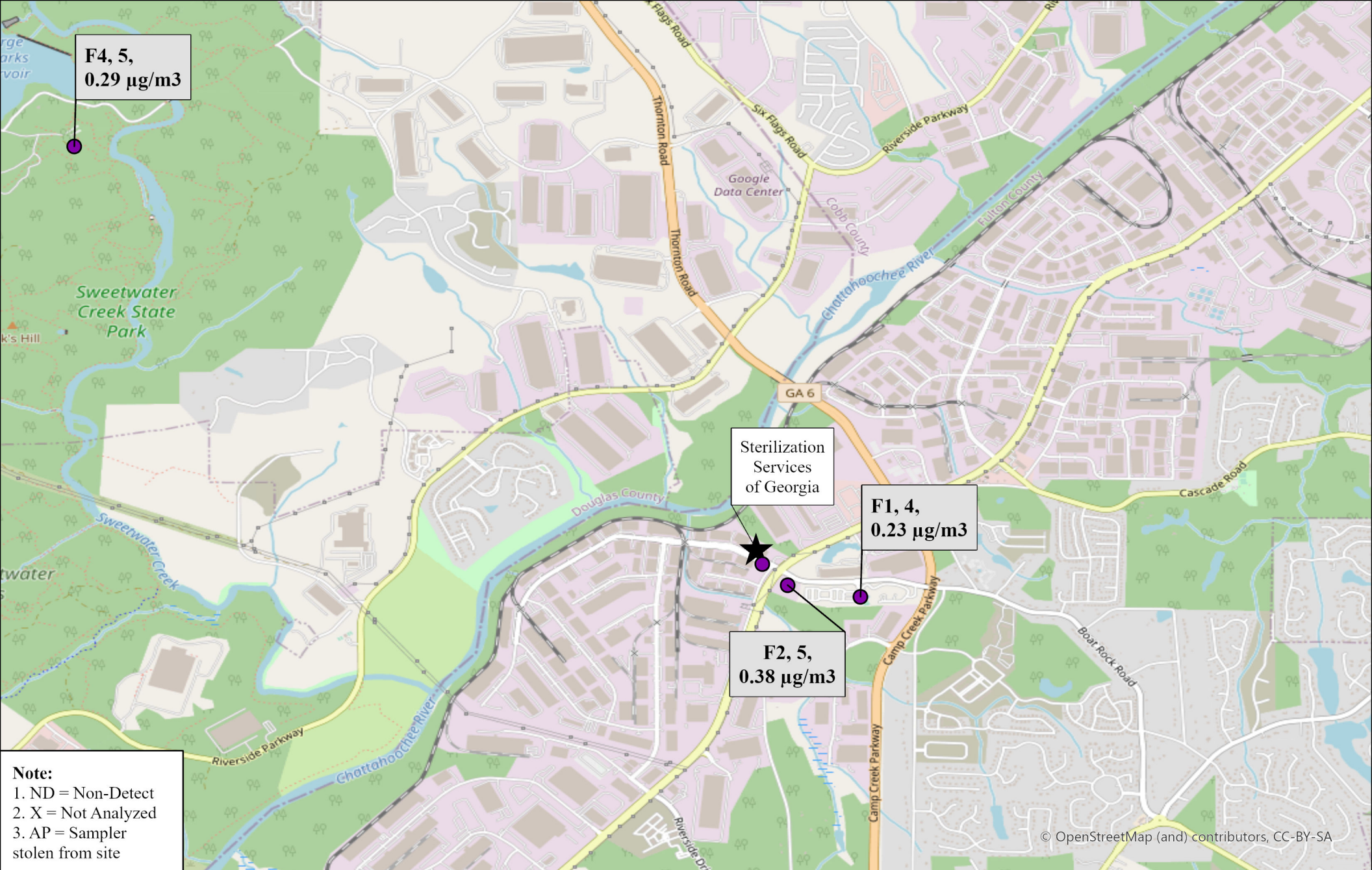
04/22/2021
Sampled By: Georgia Environmental Protection Division
Analyzed By: Eastern Research Group



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

Ethylene Oxide Sampling
Fulton County, GA

04/28/2021
Sampled By: Georgia Environmental Protection Division
Analyzed By: Eastern Research Group



Ethylene Oxide Sampling
Fulton County, GA

April 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