

May 11, 2020

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: South DeKalb January 22, 2020 – February 28, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were taken at our South DeKalb monitoring station in January and February 2020. Each of the samples were sent to Eastern Research Group (ERG) for analysis.

The Qualifier code of "LK" was given by ERG to indicate that the sample may be biased high. The samples listed as AN indicate that the machine malfunctioned while collecting the sample. The Qualifier code of "2" was given to the sample 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. As of January 1, this site began sampling once every 6 days consistent with the other compounds for the National Air Toxics Trends Station (NATTS).

Date	Qualifier	EtO Concentration (ug/m ³)
01/22/2020		0.42
01/28/2020		AN
01/28/2020 QA		0.46
02/03/2020		0.32
02/03/2020 QA		0.27
02/09/2020		6.12
02/15/2020		0.47
02/21/2020		0.17
02/27/2020	LK, 2	0.13

If you have any questions, please let me know.

DGO/do



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

March 24, 2020

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

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 02/04/20 10:38 through 03/06/20 11:05.

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 #: 4022.00

REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
South Dekalb	0020428-01	Air	01/22/20 23:59	02/04/20 10:38
South Dekalb QA	0020523-02	Air	01/28/20 23:59	02/05/20 11:43
South Dekalb	0021217-01	Air	02/03/20 23:59	02/12/20 11:13
South Dekalb QA	0021312-01	Air	02/03/20 23:59	02/13/20 14:07
South Dekalb	0022018-01	Air	02/09/20 23:59	02/20/20 12:59
South Dekalb	0022424-01	Air	02/15/20 23:59	02/24/20 10:34
South Dekalb	0022815-01	Air	02/21/20 23:59	02/28/20 13:20
South Dekalb	0030607-01	Air	02/27/20 23:59	03/06/20 11:05



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REPORTED: 03/24/20 12:41

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AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0020428-01

Sampled: 01/22/20 23:59

Pressure @ Receipt: 2.00" Hg

Canister #: A21100

Received: 02/04/20 10:38

Comments:

Analyzed: 02/20/20 12:25

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	0.231	0.42		0.0250



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SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb QA

Lab ID: 0020523-02

Sampled: 01/28/20 23:59

Pressure @ Receipt: 2.00" Hg

Canister #: 5018

Received: 02/05/20 11:43

Comments: QA

Analyzed: 02/21/20 21:57

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	0.253	0.46		0.0250



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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0021217-01

Sampled: 02/03/20 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: A21058

Received: 02/12/20 11:13

Comments:

Analyzed: 02/25/20 12:16

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	0.176	0.32		0.0250



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SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb QA

Lab ID: 0021312-01

Sampled: 02/03/20 23:59

Pressure @ Receipt: 2.50" Hg

Canister #: A21032

Received: 02/13/20 14:07

Comments: QA

Analyzed: 02/25/20 13:12

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	0.152	0.27		0.0250



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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0022018-01

Sampled: 02/09/20 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: A21070

Received: 02/20/20 12:59

Comments:

Analyzed: 02/25/20 11:20

Air Toxics by EPA Compendium Method TO-15

Analyte	Results		Flag	MDL
	ppbv	ug/m ³		ppbv
Ethylene oxide	3.39	6.12		0.0250



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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0022424-01

Sampled: 02/15/20 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: SAT164

Received: 02/24/20 10:34

Comments:

Analyzed: 03/03/20 23:09

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	0.258	0.47		0.0250



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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0022815-01

Sampled: 02/21/20 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: 18870

Received: 02/28/20 13:20

Comments:

Analyzed: 03/05/20 01:44

Air Toxics by EPA Compendium Method TO-15

Analyte	Results		Flag	MDL
	ppbv	ug/m ³		ppbv
Ethylene oxide	0.0915	0.17		0.0250



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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0030607-01

Sampled: 02/27/20 23:59

Pressure @ Receipt: 0.00" Hg

Canister #: SAT157

Received: 03/06/20 11:05

Comments:

Analyzed: 03/17/20 04:57

Air Toxics by EPA Compendium Method TO-15

Analyte	Results		Flag	MDL
	ppbv	ug/m ³		ppbv
Ethylene oxide	0.0729	0.13	LK	0.0250



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FILE #: 4022.00

REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

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

Batch B0B1907 - Summa Canister Prep

Blank (B0B1907-BLK1)

Prepared: 02/14/20 Analyzed: 02/19/20

Ethylene oxide	ND	ppbv				U
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Batch B0B2006 - Summa Canister Prep

Blank (B0B2006-BLK1)

Prepared: 02/14/20 Analyzed: 02/21/20

Ethylene oxide	ND	ppbv				U
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Batch B0B2408 - Summa Canister Prep

Blank (B0B2408-BLK1)

Prepared: 02/14/20 Analyzed: 02/24/20

Ethylene oxide	ND	ppbv				U
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Batch B0C0310 - Summa Canister Prep

Blank (B0C0310-BLK1)

Prepared & Analyzed: 03/03/20

Ethylene oxide	ND	ppbv				U
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Batch B0C0407 - Summa Canister Prep

Blank (B0C0407-BLK1)

Prepared & Analyzed: 03/04/20

Ethylene oxide	ND	ppbv				U
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Batch B0C1605 - Summa Canister Prep

Blank (B0C1605-BLK1)

Prepared: 03/09/20 Analyzed: 03/16/20

Ethylene oxide	ND	ppbv				U
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REPORTED: 03/24/20 12:41

SUBMITTED: 02/04/20 to 03/06/20

AQS SITE CODE:

SITE CODE: GA EtO

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

Sequence 2002042

Calibration Check (2002042-CCV1)

Prepared & Analyzed: 02/19/20

Ethylene oxide	2.61	ppbv	4.5	30.00
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Sequence 2002044

Calibration Check (2002044-CCV1)

Prepared: 02/20/20 Analyzed: 02/21/20

Ethylene oxide	2.66	ppbv	6.3	30.00
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Sequence 2002051

Calibration Check (2002051-CCV1)

Prepared: 02/19/20 Analyzed: 02/24/20

Ethylene oxide	2.76	ppbv	10.6	30.00
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Sequence 2003009

Calibration Check (2003009-CCV1)

Prepared & Analyzed: 03/03/20

Ethylene oxide	2.43	ppbv	-2.7	30.00
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Sequence 2003013

Calibration Check (2003013-CCV1)

Prepared & Analyzed: 03/04/20

Ethylene oxide	2.87	ppbv	14.6	30.00
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Sequence 2003031

Calibration Check (2003031-CCV1)

Prepared & Analyzed: 03/16/20

Ethylene oxide	2.77	ppbv	12.1	30.00
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AQS SITE CODE:

SITE CODE: GA EtO

Notes and Definitions

U	Under Detection Limit
LK	Analyte identified; Reported value may be biased high.
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.