

Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

August 12, 2019

MEMORANDUM

SUBJECT: FINAL Analytical Report

Project: 19-0372, GA EPD Can Check

FROM: Jeffrey Hendel

LSB Organic Chemistry Section Chief

THRU: Sandra Aker, Chief

Laboratory Services Branch

TO: Stacie Masters

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used: Accreditation Accreditation	
Volatile Organics (VOA)		_
Volatile organic compounds	EPA TO-15 (Air)	ISO

Page 1 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

Report Narrative for Work Order: E192601 Analysis: VOA

7/16/19 VOC SJH: This sample was analyzed against two curves made with standards from different sources. The ethylene oxide curve check standard failed high evaluated against the 6/25 curve and low against the 6/30 curve. We are officially reporting the higher sample value (6/25), but with J and QC-3 qualifiers because "analyte calibration criteria not met" was the situation on both days. (In case you are interested, the lower value (6/30) was 0.23 ug/m3.) All other QC samples easily passed on both days.

8/12/19 VOC JRH:This data is being re-reported due to a reporting error of significant figures with the original data. In accordance with LSB's Laboratory Operations and Quality Assurance Manual, it is the general practice of LSB to report results to 2 significant figures. Due to a settings error in the laboratory information management system the original data was reported to 3 significant figures. This report corrects for the significant figure error and based on the laboratory's rounding rules, the value of ethylene oxide was change from 0.309 ug/m3 to 0.31 ug/m3. This report replaces E192601 VOA FINAL 07 16 19 1850.

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

Page 2 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 19-0372, GA EPD Can Check

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Silonite 6 Liter Canister # 32492	E192601-01	Air	6/14/19 00:00	6/21/19 10:15

Page 3 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

DATA QUALIFIER DEFINITIONS

J The identification of the analyte is acceptable; the reported value is an estimate.

QC-3 Analyte calibration criteria not met

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

- MDL Method Detection Limit The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
- MRL Minimum Reporting Limit Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
- TIC Tentatively Identified Compound An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board.

Refer to the certificate and scope of accreditation AT-1644 at: http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd

NR The EPA Region 4 Laboratory has not requested accreditation for this test.

Page 4 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

Volatile Organics

Project: 19-0372, GA EPD Can Check

Sample ID: Silonite 6 Liter Canister # 32492 Lab ID: E192601-01

Station ID: Matrix: Air

Date Collected: 6/14/19 0:00

CAS Number	Analyte	Results Qualifiers U	nits	MRL	Prepared	Analyzed	Method
75-21-8	Ethylene oxide	0.31 J, QC-3	g/m3	0.039	6/14/19 0:00	6/26/19 6:57	EPA TO-15

Page 5 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

Volatile Organics (VOA) - Quality Control US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1906082 - V TO-15 Air Canister										
Blank (1906082-BLK1)				Prepared: ()6/13/19 Aı	nalyzed: 06	5/26/19			
EPA TO-15				•		•				
Ethylene oxide	U	0.039	ug/m3							QC-6, U
LCS (1906082-BS1)				Prepared: ()6/20/19 Aı	nalyzed: 06	5/26/19			
EPA TO-15										
Ethylene oxide	2.0919		ppbv	2.1560		97.0	70-130			QC-6
LCS Dup (1906082-BSD1)				Prepared: (06/20/19 Aı	nalyzed: 06	5/26/19			
EPA TO-15										
Ethylene oxide	2.0986		ppbv	2.1560		97.3	70-130	0.317	25	QC-6
Duplicate (1906082-DUP1)	Sou	rce: E192601-	01	Prepared: (06/14/19 Aı	nalyzed: 06	5/26/19			
EPA TO-15										
Ethylene oxide	0.30453	0.039	ug/m3		0.30857			1.32	25	J, QC-3
MRL Verification (1906082-PS1)				Prepared: 06/20/19 Analyzed: 06/26/19						
EPA TO-15										
Ethylene oxide	0.030360		ppbv	0.021560		141	50-150			MRL-5, QC-6
Batch 1906095 - V TO-15 Air Canister										
Blank (1906095-BLK1)				Prepared: 06/13/19 Analyzed: 07/01/19						
EPA TO-15				•		•				
Ethylene oxide	U	0.039	ug/m3							QC-5, U
LCS (1906095-BS1)				Prepared: ()6/27/19 Aı	nalyzed: 06	5/30/19			
EPA TO-15										
Ethylene oxide	2.0402		ppbv	2.1640		94.3	70-130			QC-5
LCS Dup (1906095-BSD1)				Prepared: 06/27/19 Analyzed: 06/30/19						
EPA TO-15										
Ethylene oxide	2.0332		ppbv	2.1640		94.0	70-130	0.344	25	QC-5
MRL Verification (1906095-PS1)				Prepared: 06/27/19 Analyzed: 06/30/19						
EPA TO-15 Ethylene oxide	0.028020		ppbv	0.021640		129	50-150			MRL-5, QC-5
										4 - 5

Page 6 of 8 E192601 VOA FINAL 08 12 19 1318



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

Volatile Organics (VOA) - Quality Control US-EPA, Region 4, LSASD

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1906095 - V TO-15 Air Canister

MRL Verification (1906095-PS1) Prepared: 06/27/19 Analyzed: 06/30/19

Page 7 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18



Region 4 Laboratory Services and Applied Science Division 980 College Station Road, Athens, Georgia 30605-2700 D.A.R.T. Id: 19-0372

Project: 19-0372, GA EPD Can Check - Reported by Jeffrey Hendel

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-5	MRL verification for Air matrix
QC-3	Analyte calibration criteria not met
QC-5	Calibration check standard less than method control limits.
QC-6	Calibration check standard greater than method control limits.

Calibration check standard greater than method control limits.

Page 8 of 8 E192601 VOA FINAL 08 12 19 1318 8/12/19 13:18