



LABORATORY REPORT

May 23, 2023

██████████
Stantec
27280 Haggerty Road, Suite C-11
Farmington, MI 48331

RE: Bristol, VA / 182603807

Dear ██████:

Enclosed are the results of the samples submitted to our laboratory on May 12, 2023. For your reference, these analyses have been assigned our service request number P2302140.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental

Shaarazetta Robinson
Project Manager



Client: Stantec
Project: Bristol, VA / 182603807

Service Request No: P2302140

CASE NARRATIVE

The samples were received intact under chain of custody on May 12, 2023 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Fixed Gases Analysis

The samples were analyzed for fixed gases (hydrogen, oxygen, nitrogen, carbon monoxide, methane and carbon dioxide) according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD). This procedure is described in laboratory SOP VOA-EPA3C. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per ASTM D 5504-20 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP accreditation.

Volatile Organic Compound Analysis

The samples were also analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. The method was modified to include the use of helium as a diluent gas in the place of zero-grade air for container pressurization for P2302140-008 through P2302140-010. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The minimum criteria for Tetrachloroethene and 1,2-Dichlorobenzene were not met in the Continuing Calibration Verification (CCV) and Chlorobenzene in the Laboratory Control Samples (LCS/DLCS) analyzed on May 19, 2023. In accordance with ALS Environmental standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verified that instrument sensitivity was adequate to detect the analytes at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compounds in question and the compounds were not detected in the field samples above the method reporting limit, the data quality has not been significantly affected. This procedure is a quantitative confirmation of non-detect results at or below the MRL. The data has been flagged accordingly. No further corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.4 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	https://internet.deq.louisiana.gov/portal/divisions/lalap/accredited-laboratories	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtm	2022028
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	006-999-456
New Jersey DEP (NELAP)	https://dep.nj.gov/dsr/oqa/certified-laboratories/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-011
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-22-13
Utah DOH (NELAP)	https://uphl.utah.gov/certifications/environmental-laboratory-certification/	CA016272022-14
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946
Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.		

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Stantec
Project ID: Bristol, VA / 182603807

Service Request: P2302140

Date Received: 5/12/2023
Time Received: 09:37

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	P _i l (psig)	P _f l (psig)				
								ASTM D 5504-20 - Sulfur Can	TO-15 - VOC Cans 62	3C Modified - Fxd Gases Can	TO-15 Modified - VOC Cans 62
MP-1	P2302140-001	Air	5/11/2023	08:20	AS01009	-1.78	4.00	X	X		
MP-2	P2302140-002	Air	5/11/2023	07:55	AS01763	-1.88	3.99	X	X		
MP-3	P2302140-003	Air	5/11/2023	05:14	AS01756	-2.00	3.91	X	X		
MP-4	P2302140-004	Air	5/11/2023	08:05	AS00640	-2.60	3.64	X	X		
MP-5	P2302140-005	Air	5/11/2023	07:00	AS01743	-1.49	3.86	X	X		
MP-6	P2302140-006	Air	5/11/2023	07:13	AS01717	-1.15	3.85	X	X		
MP-7	P2302140-007	Air	5/11/2023	09:45	AS01077	-1.34	3.71	X	X		
SW-2U	P2302140-008	Air	5/10/2023	15:34	AS01226	-2.52	4.70	X		X	X
SW-2L	P2302140-009	Air	5/10/2023	15:34	AS01001	-2.74	4.00	X		X	X
SW-1U	P2302140-010	Air	5/10/2023	16:05	AS01256	-3.01	3.98	X		X	X



Air - Chain of Custody Record & Analytical Service Request

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2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. 72302140

Company Name & Address (Reporting Information)						Project Name					ALS Contact			Comments TC-15 Full Scan + TICs; report results down to MDL for TO- 15 and ASTM D5504; individually certified Silco canisters & regulators			
Stantec Consulting Services Inc. 27280 Haggerty Road, Suite C-11 Farmington Hills, MI 48331						Bristol, VA					Analysis Method						
Project Manager						Project Number 182603807					USEPA Method TO-15 + TICs	ASTM-D5504	USEPA Method 3C				
Phone						P.O. # / Billing Information											
Email Address for Result Reporting						Sampler (Print & Sign)											
Client Sample ID	Laboratory ID Number	Start Date	End Date	Start Time	End Time	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume							
MP-1	1	5/10/2023	5/11/2023	1020	0820	AS01009	SFC00039	30	4	5.20	X	X					
MP-2	2	5/10/2023	5/11/2023	1055	0755	AS01763	SFC00721	29	4.5	4.98	X	X					
MP-3	3	5/10/2023	5/11/2023	1030	0514	AS01756	SFC00565	29	5	4.97	X	X					
MP-4	4	5/10/2023	5/11/2023	1105	0805	AS00640	SFC00680	28	4	5.14	X	X					
MP-5	5	5/10/2023	5/11/2023	1000	0700	AS01743	SFC00518	29	4	5.17	X	X					
MP-6	6	5/10/2023	5/11/2023	1013	0713	AS01717	SFC00645	30	4	5.20	X	X					
MP-7	7	5/10/2023	5/11/2023	1045	0945	AS01077	SFC00560	29.5	3	5.39	X	X					
SW-2U	8	5/10/2023	5/10/2023	1519	1534	AS01226	SOA00254	29	5	4.97	X	X	X				
SW-2L	9	5/10/2023	5/10/2023	1519	1534	AS01001	SOA00248	29	4	5.17	X	X	X				
SW-1U	10	5/10/2023	5/10/2023	1550	1605	AS01256	SOA00360	29	5	4.97	X	X	X				
Report Tier Levels - please select												Chain of Custody Seal: (Circle)		Project Requirements (MRLs, QAPP)			
Tier I - Results (Default if not specified) _____ Tier II (Results + QC Summaries) <u>X</u> _____ Tier III (Results + QC & Calibration Summaries) _____ Tier IV (Data Validation Package) 10% Surcharge _____												INTACT			BROKEN		ABSENT
Relinquished by: (Signature) _____						Date: 5/11/2023		Time: 1300		Received by: (Signature) _____		Date: 5/11/2023		Time: _____			
Relinquished by: (Signature) _____						Date: _____		Time: _____		Received by: (Signature) _____		Date: 5-12-23		Time: 0937			
												Cooler / Blank Temperature _____ °C					

ALS Environmental Sample Acceptance Check Form

Client: Stantec Work order: P2302140
 Project: Bristol, VA / 182603807
 Sample(s) received on: 5/12/23 Date opened: 5/12/23 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | Yes | No | N/A |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | ☒ | ☐ | ☐ |
| 2 Did sample containers arrive in good condition? | ☒ | ☐ | ☐ |
| 3 Were chain-of-custody papers used and filled out? | ☒ | ☐ | ☐ |
| 4 Did sample container labels and/or tags agree with custody papers? | ☒ | ☐ | ☐ |
| 5 Was sample volume received adequate for analysis? | ☒ | ☐ | ☐ |
| 6 Are samples within specified holding times? | ☒ | ☐ | ☐ |
| 7 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | ☐ | ☐ | ☒ |
| 8 Were custody seals on outside of cooler/Box/Container? | ☐ | ☒ | ☐ |
| Location of seal(s)? _____ Sealing Lid? | ☐ | ☐ | ☒ |
| Were signature and date included? | ☐ | ☐ | ☒ |
| Were seals intact? | ☐ | ☐ | ☒ |
| 9 Do containers have appropriate preservation , according to method/SOP or Client specified information? | ☐ | ☐ | ☒ |
| Is there a client indication that the submitted samples are pH preserved? | ☐ | ☐ | ☒ |
| Were VOA vials checked for presence/absence of air bubbles? | ☐ | ☐ | ☒ |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | ☐ | ☐ | ☒ |
| 10 Tubes: Are the tubes capped and intact? | ☐ | ☐ | ☒ |
| 11 Badges: Are the badges properly capped and intact? | ☐ | ☐ | ☒ |
| Are dual bed badges separated and individually capped and intact? | ☐ | ☐ | ☒ |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2302140-001.01	6.0 L Silonite Can					
P2302140-002.01	6.0 L Silonite Can					
P2302140-003.01	6.0 L Silonite Can					
P2302140-004.01	6.0 L Silonite Can					
P2302140-005.01	6.0 L Silonite Can					
P2302140-006.01	6.0 L Silonite Can					
P2302140-007.01	6.0 L Silonite Can					
P2302140-008.01	6.0 L Silonite Can					
P2302140-009.01	6.0 L Silonite Can					
P2302140-010.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): _____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-2U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-008

Test Code: EPA Method 3C Modified
Instrument ID: Agilent 8890/GC38/TCD
Analyst: Kylan Malloy
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01226

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/15/23
Volume(s) Analyzed: 0.10 ml(s)

Initial Pressure (psig): -2.52 **Final Pressure (psig):** 4.70

Container Dilution Factor: 1.59

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	0.663	0.16	
7782-44-7	Oxygen*	19.1	0.16	
7727-37-9	Nitrogen	69.1	0.16	
630-08-0	Carbon Monoxide	ND	0.16	
74-82-8	Methane	2.35	0.16	
124-38-9	Carbon Dioxide	8.83	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-2L
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-009

Test Code: EPA Method 3C Modified
Instrument ID: Agilent 8890/GC38/TCD
Analyst: Kylan Malloy
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01001

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/15/23
Volume(s) Analyzed: 0.10 ml(s)

Initial Pressure (psig): -2.74 **Final Pressure (psig):** 4.00

Container Dilution Factor: 1.56

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	0.254	0.16	
7782-44-7	Oxygen*	9.79	0.16	
7727-37-9	Nitrogen	41.2	0.16	
630-08-0	Carbon Monoxide	ND	0.16	
74-82-8	Methane	15.2	0.16	
124-38-9	Carbon Dioxide	33.5	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-1U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-010

Test Code: EPA Method 3C Modified
Instrument ID: Agilent 8890/GC38/TCD
Analyst: Kylan Malloy
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01256

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/15/23
Volume(s) Analyzed: 0.10 ml(s)

Initial Pressure (psig): -3.01 **Final Pressure (psig):** 3.98

Container Dilution Factor: 1.60

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	1.58	0.16	
7782-44-7	Oxygen*	18.1	0.16	
7727-37-9	Nitrogen	64.1	0.16	
630-08-0	Carbon Monoxide	ND	0.16	
74-82-8	Methane	3.54	0.16	
124-38-9	Carbon Dioxide	12.7	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230515-MB

Test Code: EPA Method 3C Modified
Instrument ID: Agilent 8890/GC38/TCD
Analyst: Kylan Malloy
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/15/23
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7	Oxygen*	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

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Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230515-DLCS

Test Code: EPA Method 3C Modified
Instrument ID: Agilent 8890/GC38/TCD
Analyst: Kylan Malloy
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/15/23
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS ppmV	LCS ppmV	DLCS ppmV	LCS	DLCS	Acceptance Limits			
1333-74-0	Hydrogen	39,700	43,500	44,600	110	112	96-117	2	5	
7782-44-7	Oxygen*	25,100	26,000	26,800	104	107	92-112	3	7	
7727-37-9	Nitrogen	49,800	51,200	52,700	103	106	89-113	3	7	
630-08-0	Carbon Monoxide	49,600	53,100	54,400	107	110	96-113	3	5	
74-82-8	Methane	40,000	42,100	43,100	105	108	95-111	3	5	
124-38-9	Carbon Dioxide	49,600	52,300	53,300	105	107	93-112	2	6	

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-1
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-001

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01009

Date Collected: 5/11/23
 Time Collected: 08:20
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 09:53
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 4.00

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	ND	7.3	
463-58-1	Carbonyl Sulfide	ND	18	ND	7.3	
74-93-1	Methyl Mercaptan	ND	14	ND	7.3	
75-08-1	Ethyl Mercaptan	ND	18	ND	7.3	
75-18-3	Dimethyl Sulfide	ND	18	ND	7.3	
75-15-0	Carbon Disulfide	ND	11	ND	3.6	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.3	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.3	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.3	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.3	
110-02-1	Thiophene	ND	25	ND	7.3	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.3	
352-93-2	Diethyl Sulfide	ND	27	ND	7.3	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.3	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.6	
616-44-4	3-Methylthiophene	ND	29	ND	7.3	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.3	
638-02-8	2,5-Dimethylthiophene	ND	33	ND	7.3	
872-55-9	2-Ethylthiophene	ND	33	ND	7.3	
110-81-6	Diethyl Disulfide	ND	18	ND	3.6	

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RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-2
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-002

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01763

Date Collected: 5/11/23
 Time Collected: 07:55
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 11:02
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -1.88 Final Pressure (psig): 3.99

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	ND	7.3	
463-58-1	Carbonyl Sulfide	ND	18	ND	7.3	
74-93-1	Methyl Mercaptan	ND	14	ND	7.3	
75-08-1	Ethyl Mercaptan	ND	19	ND	7.3	
75-18-3	Dimethyl Sulfide	ND	19	ND	7.3	
75-15-0	Carbon Disulfide	ND	11	ND	3.7	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.3	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.3	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.3	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.3	
110-02-1	Thiophene	ND	25	ND	7.3	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.3	
352-93-2	Diethyl Sulfide	ND	27	ND	7.3	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.3	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.7	
616-44-4	3-Methylthiophene	ND	29	ND	7.3	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.3	
638-02-8	2,5-Dimethylthiophene	ND	33	ND	7.3	
872-55-9	2-Ethylthiophene	ND	33	ND	7.3	
110-81-6	Diethyl Disulfide	ND	18	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-3
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-003

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01756

Date Collected: 5/11/23
 Time Collected: 05:14
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 11:40
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -2.00 Final Pressure (psig): 3.91

Container Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	ND	7.4	
463-58-1	Carbonyl Sulfide	ND	18	ND	7.4	
74-93-1	Methyl Mercaptan	ND	14	ND	7.4	
75-08-1	Ethyl Mercaptan	ND	19	ND	7.4	
75-18-3	Dimethyl Sulfide	ND	19	ND	7.4	
75-15-0	Carbon Disulfide	ND	11	ND	3.7	
75-33-2	Isopropyl Mercaptan	ND	23	ND	7.4	
75-66-1	tert-Butyl Mercaptan	ND	27	ND	7.4	
107-03-9	n-Propyl Mercaptan	ND	23	ND	7.4	
624-89-5	Ethyl Methyl Sulfide	ND	23	ND	7.4	
110-02-1	Thiophene	ND	25	ND	7.4	
513-44-0	Isobutyl Mercaptan	ND	27	ND	7.4	
352-93-2	Diethyl Sulfide	ND	27	ND	7.4	
109-79-5	n-Butyl Mercaptan	ND	27	ND	7.4	
624-92-0	Dimethyl Disulfide	ND	14	ND	3.7	
616-44-4	3-Methylthiophene	ND	29	ND	7.4	
110-01-0	Tetrahydrothiophene	ND	26	ND	7.4	
638-02-8	2,5-Dimethylthiophene	ND	34	ND	7.4	
872-55-9	2-Ethylthiophene	ND	34	ND	7.4	
110-81-6	Diethyl Disulfide	ND	18	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-4
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-004

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS00640

Date Collected: 5/11/23
 Time Collected: 08:05
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 12:18
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -2.60 Final Pressure (psig): 3.64

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	11	ND	7.6	
463-58-1	Carbonyl Sulfide	ND	19	ND	7.6	
74-93-1	Methyl Mercaptan	ND	15	ND	7.6	
75-08-1	Ethyl Mercaptan	ND	19	ND	7.6	
75-18-3	Dimethyl Sulfide	ND	19	ND	7.6	
75-15-0	Carbon Disulfide	ND	12	ND	3.8	
75-33-2	Isopropyl Mercaptan	ND	24	ND	7.6	
75-66-1	tert-Butyl Mercaptan	ND	28	ND	7.6	
107-03-9	n-Propyl Mercaptan	ND	24	ND	7.6	
624-89-5	Ethyl Methyl Sulfide	ND	24	ND	7.6	
110-02-1	Thiophene	ND	26	ND	7.6	
513-44-0	Isobutyl Mercaptan	ND	28	ND	7.6	
352-93-2	Diethyl Sulfide	ND	28	ND	7.6	
109-79-5	n-Butyl Mercaptan	ND	28	ND	7.6	
624-92-0	Dimethyl Disulfide	ND	15	ND	3.8	
616-44-4	3-Methylthiophene	ND	31	ND	7.6	
110-01-0	Tetrahydrothiophene	ND	27	ND	7.6	
638-02-8	2,5-Dimethylthiophene	ND	35	ND	7.6	
872-55-9	2-Ethylthiophene	ND	35	ND	7.6	
110-81-6	Diethyl Disulfide	ND	19	ND	3.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-5
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-005

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01743

Date Collected: 5/11/23
 Time Collected: 07:00
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 12:37
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -1.49 Final Pressure (psig): 3.86

Container Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	ND	7.0	
463-58-1	Carbonyl Sulfide	ND	17	ND	7.0	
74-93-1	Methyl Mercaptan	ND	14	ND	7.0	
75-08-1	Ethyl Mercaptan	ND	18	ND	7.0	
75-18-3	Dimethyl Sulfide	ND	18	ND	7.0	
75-15-0	Carbon Disulfide	ND	11	ND	3.5	
75-33-2	Isopropyl Mercaptan	ND	22	ND	7.0	
75-66-1	tert-Butyl Mercaptan	ND	26	ND	7.0	
107-03-9	n-Propyl Mercaptan	ND	22	ND	7.0	
624-89-5	Ethyl Methyl Sulfide	ND	22	ND	7.0	
110-02-1	Thiophene	ND	24	ND	7.0	
513-44-0	Isobutyl Mercaptan	ND	26	ND	7.0	
352-93-2	Diethyl Sulfide	ND	26	ND	7.0	
109-79-5	n-Butyl Mercaptan	ND	26	ND	7.0	
624-92-0	Dimethyl Disulfide	ND	13	ND	3.5	
616-44-4	3-Methylthiophene	ND	28	ND	7.0	
110-01-0	Tetrahydrothiophene	ND	25	ND	7.0	
638-02-8	2,5-Dimethylthiophene	ND	32	ND	7.0	
872-55-9	2-Ethylthiophene	ND	32	ND	7.0	
110-81-6	Diethyl Disulfide	ND	17	ND	3.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-6
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-006

Test Code: ASTM D 5504-20
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Gilbert Gutierrez
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01717

Date Collected: 5/11/23
Time Collected: 07:13
Date Received: 5/12/23
Date Analyzed: 5/15/23
Time Analyzed: 12:58
Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -1.15 **Final Pressure (psig):** 3.85

Container Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.5	ND	6.9	
463-58-1	Carbonyl Sulfide	ND	17	ND	6.9	
74-93-1	Methyl Mercaptan	ND	13	ND	6.9	
75-08-1	Ethyl Mercaptan	ND	17	ND	6.9	
75-18-3	Dimethyl Sulfide	ND	17	ND	6.9	
75-15-0	Carbon Disulfide	ND	11	ND	3.4	
75-33-2	Isopropyl Mercaptan	ND	21	ND	6.9	
75-66-1	tert-Butyl Mercaptan	ND	25	ND	6.9	
107-03-9	n-Propyl Mercaptan	ND	21	ND	6.9	
624-89-5	Ethyl Methyl Sulfide	ND	21	ND	6.9	
110-02-1	Thiophene	ND	24	ND	6.9	
513-44-0	Isobutyl Mercaptan	ND	25	ND	6.9	
352-93-2	Diethyl Sulfide	ND	25	ND	6.9	
109-79-5	n-Butyl Mercaptan	ND	25	ND	6.9	
624-92-0	Dimethyl Disulfide	ND	13	ND	3.4	
616-44-4	3-Methylthiophene	ND	27	ND	6.9	
110-01-0	Tetrahydrothiophene	ND	25	ND	6.9	
638-02-8	2,5-Dimethylthiophene	ND	31	ND	6.9	
872-55-9	2-Ethylthiophene	ND	31	ND	6.9	
110-81-6	Diethyl Disulfide	ND	17	ND	3.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-7
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-007

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01077

Date Collected: 5/11/23
 Time Collected: 09:45
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 13:22
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -1.34 Final Pressure (psig): 3.71

Container Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.6	ND	6.9	
463-58-1	Carbonyl Sulfide	ND	17	ND	6.9	
74-93-1	Methyl Mercaptan	ND	14	ND	6.9	
75-08-1	Ethyl Mercaptan	ND	18	ND	6.9	
75-18-3	Dimethyl Sulfide	ND	18	ND	6.9	
75-15-0	Carbon Disulfide	ND	11	ND	3.5	
75-33-2	Isopropyl Mercaptan	ND	21	ND	6.9	
75-66-1	tert-Butyl Mercaptan	ND	25	ND	6.9	
107-03-9	n-Propyl Mercaptan	ND	21	ND	6.9	
624-89-5	Ethyl Methyl Sulfide	ND	21	ND	6.9	
110-02-1	Thiophene	ND	24	ND	6.9	
513-44-0	Isobutyl Mercaptan	ND	25	ND	6.9	
352-93-2	Diethyl Sulfide	ND	25	ND	6.9	
109-79-5	n-Butyl Mercaptan	ND	25	ND	6.9	
624-92-0	Dimethyl Disulfide	ND	13	ND	3.5	
616-44-4	3-Methylthiophene	ND	28	ND	6.9	
110-01-0	Tetrahydrothiophene	ND	25	ND	6.9	
638-02-8	2,5-Dimethylthiophene	ND	32	ND	6.9	
872-55-9	2-Ethylthiophene	ND	32	ND	6.9	
110-81-6	Diethyl Disulfide	ND	17	ND	3.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: Stantec
Client Sample ID: SW-2U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-008

Test Code: ASTM D 5504-20
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Gilbert Gutierrez
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01226

Date Collected: 5/10/23
Time Collected: 15:34
Date Received: 5/12/23
Date Analyzed: 5/15/23
Time Analyzed: 14:02
Volume(s) Analyzed: 0.10 ml(s)

Initial Pressure (psig): -2.52 **Final Pressure (psig):** 4.70

Container Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	110	ND	80	
463-58-1	Carbonyl Sulfide	1,300	200	540	80	
74-93-1	Methyl Mercaptan	ND	160	ND	80	
75-08-1	Ethyl Mercaptan	ND	200	ND	80	
75-18-3	Dimethyl Sulfide	910,000	200	360,000	80	
75-15-0	Carbon Disulfide	2,300	120	750	40	
75-33-2	Isopropyl Mercaptan	ND	250	ND	80	
75-66-1	tert-Butyl Mercaptan	ND	290	ND	80	
107-03-9	n-Propyl Mercaptan	ND	250	ND	80	
624-89-5	Ethyl Methyl Sulfide	11,000	250	3,700	80	
110-02-1	Thiophene	19,000	270	5,500	80	
513-44-0	Isobutyl Mercaptan	ND	290	ND	80	
352-93-2	Diethyl Sulfide	ND	290	ND	80	
109-79-5	n-Butyl Mercaptan	3,200	290	870	80	
624-92-0	Dimethyl Disulfide	310,000	150	80,000	40	
616-44-4	3-Methylthiophene	2,900	320	720	80	
110-01-0	Tetrahydrothiophene	4,200	290	1,200	80	
638-02-8	2,5-Dimethylthiophene	1,300	360	280	80	
872-55-9	2-Ethylthiophene	1,200	360	260	80	
110-81-6	Diethyl Disulfide	ND	200	ND	40	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: Stantec
Client Sample ID: SW-2L
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-009

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01001

Date Collected: 5/10/23
 Time Collected: 15:34
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 14:24
 Volume(s) Analyzed: 0.050 ml(s)

Initial Pressure (psig): -2.74 Final Pressure (psig): 4.00

Container Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	220	ND	160	
463-58-1	Carbonyl Sulfide	1,200	380	490	160	
74-93-1	Methyl Mercaptan	ND	310	ND	160	
75-08-1	Ethyl Mercaptan	ND	400	ND	160	
75-18-3	Dimethyl Sulfide	1,000,000	400	400,000	160	
75-15-0	Carbon Disulfide	1,300	240	420	78	
75-33-2	Isopropyl Mercaptan	ND	490	ND	160	
75-66-1	tert-Butyl Mercaptan	ND	580	ND	160	
107-03-9	n-Propyl Mercaptan	ND	490	ND	160	
624-89-5	Ethyl Methyl Sulfide	32,000	490	10,000	160	
110-02-1	Thiophene	49,000	540	14,000	160	
513-44-0	Isobutyl Mercaptan	ND	580	ND	160	
352-93-2	Diethyl Sulfide	ND	580	ND	160	
109-79-5	n-Butyl Mercaptan	7,700	580	2,100	160	
624-92-0	Dimethyl Disulfide	280,000	300	73,000	78	
616-44-4	3-Methylthiophene	7,400	630	1,800	160	
110-01-0	Tetrahydrothiophene	7,600	560	2,100	160	
638-02-8	2,5-Dimethylthiophene	2,400	720	530	160	
872-55-9	2-Ethylthiophene	2,900	720	630	160	
110-81-6	Diethyl Disulfide	650	390	130	78	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-1U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-010

Test Code: ASTM D 5504-20
 Instrument ID: Agilent 7890A/GC22/SCD
 Analyst: Gilbert Gutierrez
 Sample Type: 6.0 L Silonite Canister
 Test Notes:
 Container ID: AS01256

Date Collected: 5/10/23
 Time Collected: 16:05
 Date Received: 5/12/23
 Date Analyzed: 5/15/23
 Time Analyzed: 15:02, 15:22
 Volume(s) Analyzed: 1.0 ml(s)
 0.0050 ml(s)

Initial Pressure (psig): -3.01 Final Pressure (psig): 3.98

Container Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	13	11	9.5	8.0	
463-58-1	Carbonyl Sulfide	2,200	20	890	8.0	
74-93-1	Methyl Mercaptan	25	16	13	8.0	
75-08-1	Ethyl Mercaptan	ND	20	ND	8.0	
75-18-3	Dimethyl Sulfide	860,000	4,100	340,000	1,600	D
75-15-0	Carbon Disulfide	2,600	12	840	4.0	
75-33-2	Isopropyl Mercaptan	ND	25	ND	8.0	
75-66-1	tert-Butyl Mercaptan	ND	29	ND	8.0	
107-03-9	n-Propyl Mercaptan	ND	25	ND	8.0	
624-89-5	Ethyl Methyl Sulfide	15,000	25	4,800	8.0	
110-02-1	Thiophene	24,000	28	6,900	8.0	
513-44-0	Isobutyl Mercaptan	ND	29	ND	8.0	
352-93-2	Diethyl Sulfide	ND	29	ND	8.0	
109-79-5	n-Butyl Mercaptan	4,600	29	1,300	8.0	
624-92-0	Dimethyl Disulfide	260,000	3,100	68,000	800	D
616-44-4	3-Methylthiophene	3,300	32	820	8.0	
110-01-0	Tetrahydrothiophene	5,900	29	1,600	8.0	
638-02-8	2,5-Dimethylthiophene	1,800	37	400	8.0	
872-55-9	2-Ethylthiophene	1,700	37	370	8.0	
110-81-6	Diethyl Disulfide	ND	20	ND	4.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230515-MB

Test Code: ASTM D 5504-20
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Gilbert Gutierrez
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 5/15/23
Time Analyzed: 09:07
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230515-DLCS

Test Code: ASTM D 5504-20
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Gilbert Gutierrez
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/15/23
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS ppbV	LCS ppbV	DLCS ppbV	LCS	DLCS	Acceptance Limits			
7783-06-4	Hydrogen Sulfide	1,000	898	785	90	79	72-122	13	18	
463-58-1	Carbonyl Sulfide	1,000	1,110	991	111	99	72-121	11	17	
74-93-1	Methyl Mercaptan	1,000	1,160	1,060	116	106	74-127	9	18	

ALS ENVIRONMENTAL

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Client: Stantec
Client Sample ID: MP-1
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01009

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 4.00

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	1.4	0.77	0.19	0.80	0.45	0.11	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.77	0.13	0.39	0.16	0.026	
74-87-3	Chloromethane	0.38	0.75	0.12	0.19	0.37	0.060	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	0.12	ND	0.11	0.017	
75-01-4	Vinyl Chloride	ND	0.74	0.083	ND	0.29	0.032	
106-99-0	1,3-Butadiene	ND	0.77	0.13	ND	0.35	0.058	
74-83-9	Bromomethane	ND	0.74	0.11	ND	0.19	0.028	
75-00-3	Chloroethane	ND	0.75	0.096	ND	0.29	0.036	
67-64-1	Acetone	6.2	7.6	1.7	2.6	3.2	0.73	J
75-69-4	Trichlorofluoromethane (CFC 11)	0.98	0.75	0.12	0.18	0.13	0.021	
67-63-0	2-Propanol (Isopropyl Alcohol)	0.86	1.5	0.32	0.35	0.60	0.13	J
75-35-4	1,1-Dichloroethene	ND	0.78	0.11	ND	0.20	0.027	
75-09-2	Methylene Chloride	0.29	0.77	0.22	0.085	0.22	0.063	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.43	0.78	0.11	0.057	0.10	0.014	J
75-15-0	Carbon Disulfide	0.36	1.6	0.23	0.12	0.50	0.075	J
156-60-5	trans-1,2-Dichloroethene	ND	0.78	0.11	ND	0.20	0.027	
75-34-3	1,1-Dichloroethane	ND	0.78	0.11	ND	0.19	0.028	
1634-04-4	Methyl tert-Butyl Ether	ND	0.78	0.091	ND	0.22	0.025	
108-05-4	Vinyl Acetate	ND	7.3	1.7	ND	2.1	0.49	
78-93-3	2-Butanone (MEK)	0.82	1.5	0.16	0.28	0.51	0.054	J
156-59-2	cis-1,2-Dichloroethene	ND	0.77	0.11	ND	0.19	0.027	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-1
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01009

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 Final Pressure (psig): 4.00

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	14	3.0	0.41	4.0	0.85	0.11	
110-54-3	n-Hexane	0.30	0.77	0.16	0.085	0.22	0.045	J
67-66-3	Chloroform	ND	0.77	0.10	ND	0.16	0.021	
109-99-9	Tetrahydrofuran (THF)	ND	1.5	0.097	ND	0.49	0.033	
107-06-2	1,2-Dichloroethane	0.10	0.78	0.086	0.025	0.19	0.021	J
71-55-6	1,1,1-Trichloroethane	ND	0.77	0.096	ND	0.14	0.018	
71-43-2	Benzene	0.47	0.78	0.11	0.15	0.25	0.035	J
56-23-5	Carbon Tetrachloride	0.35	0.75	0.11	0.056	0.12	0.017	J
110-82-7	Cyclohexane	ND	1.5	0.22	ND	0.44	0.063	
78-87-5	1,2-Dichloropropane	ND	0.77	0.096	ND	0.17	0.021	
75-27-4	Bromodichloromethane	ND	0.78	0.11	ND	0.12	0.017	
79-01-6	Trichloroethene	ND	0.77	0.10	ND	0.14	0.019	
123-91-1	1,4-Dioxane	ND	0.77	0.091	ND	0.21	0.025	
142-82-5	n-Heptane	0.15	0.77	0.12	0.035	0.19	0.030	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.78	0.12	ND	0.17	0.027	
108-10-1	4-Methyl-2-pentanone	0.12	1.6	0.11	0.030	0.39	0.026	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	0.16	ND	0.16	0.035	
79-00-5	1,1,2-Trichloroethane	ND	0.77	0.078	ND	0.14	0.014	
108-88-3	Toluene	0.83	0.77	0.094	0.22	0.20	0.025	
591-78-6	2-Hexanone	0.19	1.6	0.096	0.047	0.39	0.023	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-1
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01009

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.78 **Final Pressure (psig):** 4.00

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.78	0.10	ND	0.092	0.012	
106-93-4	1,2-Dibromoethane	ND	0.75	0.090	ND	0.098	0.012	
127-18-4	Tetrachloroethene	ND	0.77	0.10	ND	0.11	0.015	V
108-90-7	Chlorobenzene	ND	0.77	0.10	ND	0.17	0.022	
100-41-4	Ethylbenzene	0.19	0.77	0.11	0.045	0.18	0.025	J
179601-23-1	m,p-Xylenes	0.62	1.6	0.20	0.14	0.37	0.047	J
75-25-2	Bromoform	ND	0.78	0.16	ND	0.076	0.015	
100-42-5	Styrene	ND	0.77	0.12	ND	0.18	0.029	
95-47-6	o-Xylene	0.24	0.77	0.11	0.055	0.18	0.026	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.77	0.11	ND	0.11	0.016	
98-82-8	Cumene	ND	0.78	0.11	ND	0.16	0.023	
622-96-8	4-Ethyltoluene	ND	0.80	0.12	ND	0.16	0.025	
108-67-8	1,3,5-Trimethylbenzene	ND	0.77	0.11	ND	0.16	0.023	
95-63-6	1,2,4-Trimethylbenzene	0.16	0.77	0.11	0.032	0.16	0.022	J
100-44-7	Benzyl Chloride	ND	3.0	0.17	ND	0.59	0.034	
541-73-1	1,3-Dichlorobenzene	ND	0.77	0.12	ND	0.13	0.019	
106-46-7	1,4-Dichlorobenzene	ND	0.77	0.12	ND	0.13	0.020	
95-50-1	1,2-Dichlorobenzene	ND	0.78	0.11	ND	0.13	0.019	V
120-82-1	1,2,4-Trichlorobenzene	0.23	1.6	0.19	0.031	0.21	0.025	J
91-20-3	Naphthalene	0.28	0.80	0.19	0.054	0.15	0.036	J
87-68-3	Hexachlorobutadiene	ND	0.77	0.16	ND	0.072	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-2
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01763

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.88 **Final Pressure (psig):** 3.99

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	1.3	0.77	0.19	0.78	0.45	0.11	
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.77	0.13	0.39	0.16	0.026	
74-87-3	Chloromethane	0.38	0.76	0.13	0.19	0.37	0.061	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.76	0.12	ND	0.11	0.018	
75-01-4	Vinyl Chloride	ND	0.74	0.083	ND	0.29	0.033	
106-99-0	1,3-Butadiene	ND	0.77	0.13	ND	0.35	0.058	
74-83-9	Bromomethane	ND	0.74	0.11	ND	0.19	0.028	
75-00-3	Chloroethane	ND	0.76	0.096	ND	0.29	0.037	
67-64-1	Acetone	7.2	7.7	1.8	3.1	3.2	0.74	J
75-69-4	Trichlorofluoromethane (CFC 11)	0.99	0.76	0.12	0.18	0.14	0.021	
67-63-0	2-Propanol (Isopropyl Alcohol)	0.86	1.5	0.32	0.35	0.61	0.13	J
75-35-4	1,1-Dichloroethene	ND	0.79	0.11	ND	0.20	0.027	
75-09-2	Methylene Chloride	0.29	0.77	0.22	0.085	0.22	0.063	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.42	0.79	0.11	0.055	0.10	0.014	J
75-15-0	Carbon Disulfide	ND	1.6	0.23	ND	0.50	0.075	
156-60-5	trans-1,2-Dichloroethene	ND	0.79	0.11	ND	0.20	0.027	
75-34-3	1,1-Dichloroethane	ND	0.79	0.11	ND	0.19	0.028	
1634-04-4	Methyl tert-Butyl Ether	ND	0.79	0.092	ND	0.22	0.026	
108-05-4	Vinyl Acetate	ND	7.3	1.8	ND	2.1	0.50	
78-93-3	2-Butanone (MEK)	1.4	1.5	0.16	0.46	0.52	0.054	J
156-59-2	cis-1,2-Dichloroethene	ND	0.77	0.11	ND	0.20	0.028	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-2
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01763

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.88 **Final Pressure (psig):** 3.99

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	25	3.1	0.41	6.9	0.85	0.11	
110-54-3	n-Hexane	0.22	0.77	0.16	0.063	0.22	0.046	J
67-66-3	Chloroform	ND	0.77	0.10	ND	0.16	0.021	
109-99-9	Tetrahydrofuran (THF)	0.43	1.5	0.098	0.15	0.50	0.033	J
107-06-2	1,2-Dichloroethane	0.092	0.79	0.086	0.023	0.19	0.021	J
71-55-6	1,1,1-Trichloroethane	ND	0.77	0.096	ND	0.14	0.018	
71-43-2	Benzene	4.5	0.79	0.11	1.4	0.25	0.035	
56-23-5	Carbon Tetrachloride	0.36	0.76	0.11	0.058	0.12	0.017	J
110-82-7	Cyclohexane	ND	1.5	0.22	ND	0.45	0.064	
78-87-5	1,2-Dichloropropane	ND	0.77	0.096	ND	0.17	0.021	
75-27-4	Bromodichloromethane	ND	0.79	0.11	ND	0.12	0.017	
79-01-6	Trichloroethene	ND	0.77	0.11	ND	0.14	0.020	
123-91-1	1,4-Dioxane	ND	0.77	0.092	ND	0.21	0.026	
142-82-5	n-Heptane	0.13	0.77	0.12	0.032	0.19	0.030	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.79	0.12	ND	0.17	0.027	
108-10-1	4-Methyl-2-pentanone	0.16	1.6	0.11	0.039	0.39	0.026	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	0.16	ND	0.16	0.035	
79-00-5	1,1,2-Trichloroethane	ND	0.77	0.079	ND	0.14	0.014	
108-88-3	Toluene	1.0	0.77	0.095	0.27	0.21	0.025	
591-78-6	2-Hexanone	0.26	1.6	0.096	0.063	0.39	0.024	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-2
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01763

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.88 **Final Pressure (psig):** 3.99

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.79	0.10	ND	0.093	0.012	
106-93-4	1,2-Dibromoethane	ND	0.76	0.091	ND	0.099	0.012	
127-18-4	Tetrachloroethene	ND	0.77	0.10	ND	0.11	0.015	V
108-90-7	Chlorobenzene	ND	0.77	0.10	ND	0.17	0.023	
100-41-4	Ethylbenzene	0.58	0.77	0.11	0.13	0.18	0.025	J
179601-23-1	m,p-Xylenes	0.73	1.6	0.20	0.17	0.37	0.047	J
75-25-2	Bromoform	ND	0.79	0.16	ND	0.076	0.016	
100-42-5	Styrene	ND	0.77	0.13	ND	0.18	0.030	
95-47-6	o-Xylene	0.29	0.77	0.11	0.066	0.18	0.026	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.77	0.11	ND	0.11	0.016	
98-82-8	Cumene	ND	0.79	0.11	ND	0.16	0.023	
622-96-8	4-Ethyltoluene	ND	0.80	0.12	ND	0.16	0.025	
108-67-8	1,3,5-Trimethylbenzene	ND	0.77	0.11	ND	0.16	0.023	
95-63-6	1,2,4-Trimethylbenzene	0.25	0.77	0.11	0.051	0.16	0.022	J
100-44-7	Benzyl Chloride	ND	3.1	0.18	ND	0.59	0.034	
541-73-1	1,3-Dichlorobenzene	ND	0.77	0.12	ND	0.13	0.019	
106-46-7	1,4-Dichlorobenzene	ND	0.77	0.12	ND	0.13	0.020	
95-50-1	1,2-Dichlorobenzene	ND	0.79	0.12	ND	0.13	0.019	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.6	0.19	ND	0.22	0.026	
91-20-3	Naphthalene	ND	0.80	0.19	ND	0.15	0.036	
87-68-3	Hexachlorobutadiene	ND	0.77	0.16	ND	0.073	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-3
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01756

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.00 Final Pressure (psig): 3.91

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	1.6	0.78	0.19	0.92	0.45	0.11	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.78	0.13	0.40	0.16	0.026	
74-87-3	Chloromethane	0.40	0.76	0.13	0.19	0.37	0.061	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.76	0.12	ND	0.11	0.018	
75-01-4	Vinyl Chloride	ND	0.75	0.084	ND	0.29	0.033	
106-99-0	1,3-Butadiene	ND	0.78	0.13	ND	0.35	0.058	
74-83-9	Bromomethane	ND	0.75	0.11	ND	0.19	0.028	
75-00-3	Chloroethane	ND	0.76	0.097	ND	0.29	0.037	
67-64-1	Acetone	6.9	7.7	1.8	2.9	3.3	0.74	J
75-69-4	Trichlorofluoromethane (CFC 11)	1.0	0.76	0.12	0.18	0.14	0.021	
67-63-0	2-Propanol (Isopropyl Alcohol)	1.7	1.5	0.32	0.70	0.61	0.13	
75-35-4	1,1-Dichloroethene	ND	0.79	0.11	ND	0.20	0.027	
75-09-2	Methylene Chloride	0.30	0.78	0.22	0.086	0.22	0.063	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.44	0.79	0.11	0.057	0.10	0.015	J
75-15-0	Carbon Disulfide	ND	1.6	0.24	ND	0.51	0.076	
156-60-5	trans-1,2-Dichloroethene	ND	0.79	0.11	ND	0.20	0.027	
75-34-3	1,1-Dichloroethane	ND	0.79	0.11	ND	0.20	0.028	
1634-04-4	Methyl tert-Butyl Ether	ND	0.79	0.093	ND	0.22	0.026	
108-05-4	Vinyl Acetate	ND	7.4	1.8	ND	2.1	0.50	
78-93-3	2-Butanone (MEK)	1.2	1.5	0.16	0.41	0.52	0.055	J
156-59-2	cis-1,2-Dichloroethene	ND	0.78	0.11	ND	0.20	0.028	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Stantec
Client Sample ID: MP-3
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01756

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.00 **Final Pressure (psig):** 3.91

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	40	3.1	0.41	11	0.86	0.11	
110-54-3	n-Hexane	0.27	0.78	0.16	0.076	0.22	0.046	J
67-66-3	Chloroform	ND	0.78	0.10	ND	0.16	0.021	
109-99-9	Tetrahydrofuran (THF)	0.40	1.5	0.098	0.13	0.50	0.033	J
107-06-2	1,2-Dichloroethane	0.10	0.79	0.087	0.025	0.20	0.021	J
71-55-6	1,1,1-Trichloroethane	ND	0.78	0.097	ND	0.14	0.018	
71-43-2	Benzene	5.0	0.79	0.11	1.6	0.25	0.035	
56-23-5	Carbon Tetrachloride	0.37	0.76	0.11	0.059	0.12	0.017	J
110-82-7	Cyclohexane	ND	1.5	0.22	ND	0.45	0.064	
78-87-5	1,2-Dichloropropane	ND	0.78	0.097	ND	0.17	0.021	
75-27-4	Bromodichloromethane	ND	0.79	0.11	ND	0.12	0.017	
79-01-6	Trichloroethene	ND	0.78	0.11	ND	0.15	0.020	
123-91-1	1,4-Dioxane	ND	0.78	0.093	ND	0.22	0.026	
142-82-5	n-Heptane	0.16	0.78	0.12	0.040	0.19	0.031	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.79	0.12	ND	0.17	0.027	
108-10-1	4-Methyl-2-pentanone	0.17	1.6	0.11	0.043	0.39	0.026	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.75	0.16	ND	0.17	0.036	
79-00-5	1,1,2-Trichloroethane	ND	0.78	0.079	ND	0.14	0.015	
108-88-3	Toluene	1.1	0.78	0.096	0.29	0.21	0.025	
591-78-6	2-Hexanone	0.22	1.6	0.097	0.053	0.39	0.024	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-3
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01756

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.00 **Final Pressure (psig):** 3.91

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.79	0.10	ND	0.093	0.012	
106-93-4	1,2-Dibromoethane	ND	0.76	0.091	ND	0.10	0.012	
127-18-4	Tetrachloroethene	ND	0.78	0.10	ND	0.11	0.015	V
108-90-7	Chlorobenzene	ND	0.78	0.10	ND	0.17	0.023	
100-41-4	Ethylbenzene	0.56	0.78	0.11	0.13	0.18	0.025	J
179601-23-1	m,p-Xylenes	0.84	1.6	0.21	0.19	0.37	0.047	J
75-25-2	Bromoform	ND	0.79	0.16	ND	0.077	0.016	
100-42-5	Styrene	ND	0.78	0.13	ND	0.18	0.030	
95-47-6	o-Xylene	0.31	0.78	0.11	0.071	0.18	0.026	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.78	0.11	ND	0.11	0.016	
98-82-8	Cumene	ND	0.79	0.11	ND	0.16	0.023	
622-96-8	4-Ethyltoluene	ND	0.81	0.12	ND	0.16	0.025	
108-67-8	1,3,5-Trimethylbenzene	ND	0.78	0.11	ND	0.16	0.023	
95-63-6	1,2,4-Trimethylbenzene	0.24	0.78	0.11	0.049	0.16	0.022	J
100-44-7	Benzyl Chloride	ND	3.1	0.18	ND	0.60	0.034	
541-73-1	1,3-Dichlorobenzene	ND	0.78	0.12	ND	0.13	0.020	
106-46-7	1,4-Dichlorobenzene	ND	0.78	0.12	ND	0.13	0.020	
95-50-1	1,2-Dichlorobenzene	ND	0.79	0.12	ND	0.13	0.019	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.6	0.19	ND	0.22	0.026	
91-20-3	Naphthalene	ND	0.81	0.19	ND	0.15	0.036	
87-68-3	Hexachlorobutadiene	ND	0.78	0.16	ND	0.073	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: MP-4
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00640

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.60 Final Pressure (psig): 3.64

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	2.0	0.81	0.20	1.2	0.47	0.11	
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.81	0.13	0.38	0.16	0.027	
74-87-3	Chloromethane	0.38	0.79	0.13	0.19	0.38	0.063	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.79	0.13	ND	0.11	0.018	
75-01-4	Vinyl Chloride	ND	0.78	0.087	ND	0.30	0.034	
106-99-0	1,3-Butadiene	ND	0.81	0.13	ND	0.36	0.060	
74-83-9	Bromomethane	ND	0.78	0.11	ND	0.20	0.029	
75-00-3	Chloroethane	0.19	0.79	0.10	0.072	0.30	0.038	J
67-64-1	Acetone	11	8.0	1.8	4.8	3.4	0.77	
75-69-4	Trichlorofluoromethane (CFC 11)	0.94	0.79	0.12	0.17	0.14	0.022	
67-63-0	2-Propanol (Isopropyl Alcohol)	3.0	1.6	0.33	1.2	0.63	0.14	
75-35-4	1,1-Dichloroethene	ND	0.82	0.11	ND	0.21	0.028	
75-09-2	Methylene Chloride	0.30	0.81	0.23	0.086	0.23	0.066	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.39	0.82	0.12	0.051	0.11	0.015	J
75-15-0	Carbon Disulfide	ND	1.6	0.24	ND	0.52	0.078	
156-60-5	trans-1,2-Dichloroethene	ND	0.82	0.11	ND	0.21	0.028	
75-34-3	1,1-Dichloroethane	ND	0.82	0.12	ND	0.20	0.029	
1634-04-4	Methyl tert-Butyl Ether	ND	0.82	0.096	ND	0.23	0.027	
108-05-4	Vinyl Acetate	ND	7.6	1.8	ND	2.2	0.52	
78-93-3	2-Butanone (MEK)	4.9	1.6	0.17	1.7	0.54	0.057	
156-59-2	cis-1,2-Dichloroethene	ND	0.81	0.11	ND	0.20	0.029	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-4
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00640

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.60 **Final Pressure (psig):** 3.64

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	7.8	3.2	0.43	2.2	0.89	0.12	
110-54-3	n-Hexane	0.36	0.81	0.17	0.10	0.23	0.047	J
67-66-3	Chloroform	ND	0.81	0.11	ND	0.17	0.022	
109-99-9	Tetrahydrofuran (THF)	2.9	1.5	0.10	0.98	0.52	0.035	
107-06-2	1,2-Dichloroethane	0.11	0.82	0.090	0.027	0.20	0.022	J
71-55-6	1,1,1-Trichloroethane	ND	0.81	0.10	ND	0.15	0.018	
71-43-2	Benzene	30	0.82	0.12	9.3	0.26	0.037	
56-23-5	Carbon Tetrachloride	0.33	0.79	0.11	0.052	0.13	0.018	J
110-82-7	Cyclohexane	ND	1.6	0.23	ND	0.46	0.066	
78-87-5	1,2-Dichloropropane	ND	0.81	0.10	ND	0.17	0.022	
75-27-4	Bromodichloromethane	ND	0.82	0.12	ND	0.12	0.017	
79-01-6	Trichloroethene	ND	0.81	0.11	ND	0.15	0.020	
123-91-1	1,4-Dioxane	0.51	0.81	0.096	0.14	0.22	0.027	J
142-82-5	n-Heptane	0.35	0.81	0.13	0.086	0.20	0.032	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.82	0.13	ND	0.18	0.028	
108-10-1	4-Methyl-2-pentanone	0.47	1.7	0.11	0.11	0.41	0.027	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.78	0.17	ND	0.17	0.037	
79-00-5	1,1,2-Trichloroethane	ND	0.81	0.082	ND	0.15	0.015	
108-88-3	Toluene	3.3	0.81	0.099	0.87	0.21	0.026	
591-78-6	2-Hexanone	0.44	1.7	0.10	0.11	0.41	0.024	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-4
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00640

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.60 Final Pressure (psig): 3.64

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.82	0.11	ND	0.096	0.012	
106-93-4	1,2-Dibromoethane	ND	0.79	0.094	ND	0.10	0.012	
127-18-4	Tetrachloroethene	0.12	0.81	0.10	0.018	0.12	0.015	J, V
108-90-7	Chlorobenzene	ND	0.81	0.11	ND	0.17	0.023	
100-41-4	Ethylbenzene	3.6	0.81	0.11	0.83	0.19	0.026	
179601-23-1	m,p-Xylenes	3.1	1.7	0.21	0.71	0.39	0.049	
75-25-2	Bromoform	ND	0.82	0.17	ND	0.079	0.016	
100-42-5	Styrene	0.16	0.81	0.13	0.037	0.19	0.031	J
95-47-6	o-Xylene	1.2	0.81	0.12	0.27	0.19	0.027	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.81	0.11	ND	0.12	0.016	
98-82-8	Cumene	0.45	0.82	0.12	0.092	0.17	0.024	J
622-96-8	4-Ethyltoluene	0.44	0.84	0.13	0.089	0.17	0.026	J
108-67-8	1,3,5-Trimethylbenzene	0.50	0.81	0.12	0.10	0.16	0.024	J
95-63-6	1,2,4-Trimethylbenzene	1.2	0.81	0.11	0.24	0.16	0.023	
100-44-7	Benzyl Chloride	ND	3.2	0.18	ND	0.62	0.035	
541-73-1	1,3-Dichlorobenzene	ND	0.81	0.12	ND	0.13	0.020	
106-46-7	1,4-Dichlorobenzene	0.21	0.81	0.12	0.035	0.13	0.021	J
95-50-1	1,2-Dichlorobenzene	ND	0.82	0.12	ND	0.14	0.020	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.7	0.20	ND	0.23	0.027	
91-20-3	Naphthalene	ND	0.84	0.20	ND	0.16	0.038	
87-68-3	Hexachlorobutadiene	ND	0.81	0.17	ND	0.076	0.016	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: MP-5
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01743

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.49 **Final Pressure (psig):** 3.86

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	1.4	0.74	0.18	0.82	0.43	0.11	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.74	0.12	0.40	0.15	0.025	
74-87-3	Chloromethane	0.40	0.73	0.12	0.19	0.35	0.058	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.73	0.12	ND	0.10	0.017	
75-01-4	Vinyl Chloride	ND	0.71	0.080	ND	0.28	0.031	
106-99-0	1,3-Butadiene	ND	0.74	0.12	ND	0.34	0.056	
74-83-9	Bromomethane	ND	0.71	0.10	ND	0.18	0.027	
75-00-3	Chloroethane	ND	0.73	0.092	ND	0.28	0.035	
67-64-1	Acetone	7.4	7.4	1.7	3.1	3.1	0.71	
75-69-4	Trichlorofluoromethane (CFC 11)	0.99	0.73	0.11	0.18	0.13	0.020	
67-63-0	2-Propanol (Isopropyl Alcohol)	0.82	1.4	0.31	0.33	0.58	0.13	J
75-35-4	1,1-Dichloroethene	ND	0.76	0.10	ND	0.19	0.026	
75-09-2	Methylene Chloride	0.28	0.74	0.21	0.080	0.21	0.060	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.40	0.76	0.11	0.052	0.099	0.014	J
75-15-0	Carbon Disulfide	ND	1.5	0.22	ND	0.48	0.072	
156-60-5	trans-1,2-Dichloroethene	ND	0.76	0.10	ND	0.19	0.026	
75-34-3	1,1-Dichloroethane	ND	0.76	0.11	ND	0.19	0.027	
1634-04-4	Methyl tert-Butyl Ether	ND	0.76	0.088	ND	0.21	0.024	
108-05-4	Vinyl Acetate	ND	7.0	1.7	ND	2.0	0.48	
78-93-3	2-Butanone (MEK)	1.5	1.5	0.15	0.50	0.49	0.052	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	0.11	ND	0.19	0.026	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-5
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01743

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.49 **Final Pressure (psig):** 3.86

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	9.1	2.9	0.39	2.5	0.82	0.11	
110-54-3	n-Hexane	0.27	0.74	0.15	0.077	0.21	0.044	J
67-66-3	Chloroform	ND	0.74	0.099	ND	0.15	0.020	
109-99-9	Tetrahydrofuran (THF)	0.48	1.4	0.094	0.16	0.47	0.032	J
107-06-2	1,2-Dichloroethane	0.11	0.76	0.083	0.026	0.19	0.020	J
71-55-6	1,1,1-Trichloroethane	ND	0.74	0.092	ND	0.14	0.017	
71-43-2	Benzene	5.1	0.76	0.11	1.6	0.24	0.034	
56-23-5	Carbon Tetrachloride	0.36	0.73	0.10	0.057	0.12	0.016	J
110-82-7	Cyclohexane	ND	1.5	0.21	ND	0.43	0.061	
78-87-5	1,2-Dichloropropane	ND	0.74	0.092	ND	0.16	0.020	
75-27-4	Bromodichloromethane	ND	0.76	0.11	ND	0.11	0.016	
79-01-6	Trichloroethene	ND	0.74	0.10	ND	0.14	0.019	
123-91-1	1,4-Dioxane	ND	0.74	0.088	ND	0.21	0.024	
142-82-5	n-Heptane	0.16	0.74	0.12	0.038	0.18	0.029	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.76	0.12	ND	0.17	0.026	
108-10-1	4-Methyl-2-pentanone	0.17	1.5	0.10	0.042	0.38	0.025	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.71	0.15	ND	0.16	0.034	
79-00-5	1,1,2-Trichloroethane	ND	0.74	0.076	ND	0.14	0.014	
108-88-3	Toluene	1.1	0.74	0.091	0.29	0.20	0.024	
591-78-6	2-Hexanone	0.28	1.5	0.092	0.069	0.38	0.023	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-5
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01743

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.49 **Final Pressure (psig):** 3.86

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.76	0.098	ND	0.089	0.012	
106-93-4	1,2-Dibromoethane	ND	0.73	0.087	ND	0.095	0.011	
127-18-4	Tetrachloroethene	ND	0.74	0.097	ND	0.11	0.014	V
108-90-7	Chlorobenzene	ND	0.74	0.099	ND	0.16	0.022	
100-41-4	Ethylbenzene	0.68	0.74	0.11	0.16	0.17	0.024	J
179601-23-1	m,p-Xylenes	0.83	1.5	0.20	0.19	0.35	0.045	J
75-25-2	Bromoform	ND	0.76	0.15	ND	0.073	0.015	
100-42-5	Styrene	ND	0.74	0.12	ND	0.17	0.028	
95-47-6	o-Xylene	0.33	0.74	0.11	0.075	0.17	0.025	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.74	0.10	ND	0.11	0.015	
98-82-8	Cumene	ND	0.76	0.11	ND	0.15	0.022	
622-96-8	4-Ethyltoluene	0.12	0.77	0.12	0.024	0.16	0.024	J
108-67-8	1,3,5-Trimethylbenzene	ND	0.74	0.11	ND	0.15	0.022	
95-63-6	1,2,4-Trimethylbenzene	0.27	0.74	0.10	0.055	0.15	0.021	J
100-44-7	Benzyl Chloride	ND	2.9	0.17	ND	0.57	0.032	
541-73-1	1,3-Dichlorobenzene	ND	0.74	0.11	ND	0.12	0.019	
106-46-7	1,4-Dichlorobenzene	ND	0.74	0.11	ND	0.12	0.019	
95-50-1	1,2-Dichlorobenzene	ND	0.76	0.11	ND	0.13	0.018	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	0.18	ND	0.21	0.025	
91-20-3	Naphthalene	ND	0.77	0.18	ND	0.15	0.035	
87-68-3	Hexachlorobutadiene	ND	0.74	0.15	ND	0.070	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: MP-6
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01717

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.15 Final Pressure (psig): 3.85

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	2.1	0.73	0.18	1.2	0.42	0.10	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	0.73	0.12	0.40	0.15	0.024	
74-87-3	Chloromethane	0.39	0.71	0.12	0.19	0.35	0.057	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.71	0.12	ND	0.10	0.016	
75-01-4	Vinyl Chloride	ND	0.70	0.078	ND	0.27	0.031	
106-99-0	1,3-Butadiene	ND	0.73	0.12	ND	0.33	0.055	
74-83-9	Bromomethane	ND	0.70	0.10	ND	0.18	0.026	
75-00-3	Chloroethane	ND	0.71	0.090	ND	0.27	0.034	
67-64-1	Acetone	8.6	7.2	1.6	3.6	3.0	0.69	
75-69-4	Trichlorofluoromethane (CFC 11)	0.99	0.71	0.11	0.18	0.13	0.020	
67-63-0	2-Propanol (Isopropyl Alcohol)	1.8	1.4	0.30	0.74	0.57	0.12	
75-35-4	1,1-Dichloroethene	ND	0.74	0.10	ND	0.19	0.026	
75-09-2	Methylene Chloride	0.29	0.73	0.21	0.085	0.21	0.059	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.42	0.74	0.10	0.055	0.097	0.014	J
75-15-0	Carbon Disulfide	ND	1.5	0.22	ND	0.47	0.070	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	0.10	ND	0.19	0.026	
75-34-3	1,1-Dichloroethane	ND	0.74	0.11	ND	0.18	0.026	
1634-04-4	Methyl tert-Butyl Ether	ND	0.74	0.086	ND	0.21	0.024	
108-05-4	Vinyl Acetate	ND	6.9	1.6	ND	1.9	0.47	
78-93-3	2-Butanone (MEK)	2.3	1.4	0.15	0.77	0.48	0.051	
156-59-2	cis-1,2-Dichloroethene	ND	0.73	0.10	ND	0.18	0.026	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-6
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01717

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.15 **Final Pressure (psig):** 3.85

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	26	2.9	0.38	7.1	0.80	0.11	
110-54-3	n-Hexane	0.29	0.73	0.15	0.083	0.21	0.043	J
67-66-3	Chloroform	ND	0.73	0.097	ND	0.15	0.020	
109-99-9	Tetrahydrofuran (THF)	1.3	1.4	0.092	0.46	0.46	0.031	J
107-06-2	1,2-Dichloroethane	0.10	0.74	0.081	0.025	0.18	0.020	J
71-55-6	1,1,1-Trichloroethane	ND	0.73	0.090	ND	0.13	0.017	
71-43-2	Benzene	13	0.74	0.11	4.0	0.23	0.033	
56-23-5	Carbon Tetrachloride	0.36	0.71	0.10	0.057	0.11	0.016	J
110-82-7	Cyclohexane	ND	1.4	0.21	ND	0.42	0.060	
78-87-5	1,2-Dichloropropane	ND	0.73	0.090	ND	0.16	0.020	
75-27-4	Bromodichloromethane	ND	0.74	0.11	ND	0.11	0.016	
79-01-6	Trichloroethene	ND	0.73	0.099	ND	0.14	0.018	
123-91-1	1,4-Dioxane	ND	0.73	0.086	ND	0.20	0.024	
142-82-5	n-Heptane	0.21	0.73	0.12	0.051	0.18	0.028	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	0.11	ND	0.16	0.025	
108-10-1	4-Methyl-2-pentanone	0.27	1.5	0.10	0.066	0.37	0.024	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.70	0.15	ND	0.15	0.033	
79-00-5	1,1,2-Trichloroethane	ND	0.73	0.074	ND	0.13	0.014	
108-88-3	Toluene	1.7	0.73	0.089	0.46	0.19	0.024	
591-78-6	2-Hexanone	0.30	1.5	0.090	0.074	0.37	0.022	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-6
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01717

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.15 Final Pressure (psig): 3.85

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.74	0.096	ND	0.087	0.011	
106-93-4	1,2-Dibromoethane	ND	0.71	0.085	ND	0.093	0.011	
127-18-4	Tetrachloroethene	ND	0.73	0.095	ND	0.11	0.014	V
108-90-7	Chlorobenzene	ND	0.73	0.097	ND	0.16	0.021	
100-41-4	Ethylbenzene	1.6	0.73	0.10	0.37	0.17	0.024	
179601-23-1	m,p-Xylenes	1.5	1.5	0.19	0.34	0.35	0.044	J
75-25-2	Bromoform	ND	0.74	0.15	ND	0.072	0.015	
100-42-5	Styrene	ND	0.73	0.12	ND	0.17	0.028	
95-47-6	o-Xylene	0.55	0.73	0.11	0.13	0.17	0.024	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.73	0.10	ND	0.11	0.015	
98-82-8	Cumene	0.21	0.74	0.11	0.043	0.15	0.021	J
622-96-8	4-Ethyltoluene	0.21	0.75	0.12	0.043	0.15	0.024	J
108-67-8	1,3,5-Trimethylbenzene	0.20	0.73	0.11	0.041	0.15	0.021	J
95-63-6	1,2,4-Trimethylbenzene	0.51	0.73	0.10	0.10	0.15	0.021	J
100-44-7	Benzyl Chloride	ND	2.9	0.16	ND	0.56	0.032	
541-73-1	1,3-Dichlorobenzene	ND	0.73	0.11	ND	0.12	0.018	
106-46-7	1,4-Dichlorobenzene	0.12	0.73	0.11	0.020	0.12	0.019	J
95-50-1	1,2-Dichlorobenzene	ND	0.74	0.11	ND	0.12	0.018	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	0.18	ND	0.20	0.024	
91-20-3	Naphthalene	ND	0.75	0.18	ND	0.14	0.034	
87-68-3	Hexachlorobutadiene	ND	0.73	0.15	ND	0.068	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec

Client Sample ID: MP-7

Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140

ALS Sample ID: P2302140-007

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS01077

Date Collected: 5/11/23

Date Received: 5/12/23

Date Analyzed: 5/19/23

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.34 Final Pressure (psig): 3.71

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	2.5	0.73	0.18	1.4	0.43	0.10	
75-71-8	Dichlorodifluoromethane (CFC 12)	1.9	0.73	0.12	0.39	0.15	0.024	
74-87-3	Chloromethane	0.35	0.72	0.12	0.17	0.35	0.057	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.72	0.12	ND	0.10	0.017	
75-01-4	Vinyl Chloride	ND	0.70	0.079	ND	0.28	0.031	
106-99-0	1,3-Butadiene	ND	0.73	0.12	ND	0.33	0.055	
74-83-9	Bromomethane	ND	0.70	0.10	ND	0.18	0.026	
75-00-3	Chloroethane	ND	0.72	0.091	ND	0.27	0.035	
67-64-1	Acetone	7.6	7.3	1.7	3.2	3.1	0.70	
75-69-4	Trichlorofluoromethane (CFC 11)	0.95	0.72	0.11	0.17	0.13	0.020	
67-63-0	2-Propanol (Isopropyl Alcohol)	1.3	1.4	0.30	0.54	0.58	0.12	J
75-35-4	1,1-Dichloroethene	ND	0.75	0.10	ND	0.19	0.026	
75-09-2	Methylene Chloride	0.29	0.73	0.21	0.083	0.21	0.060	J
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.41	0.75	0.10	0.054	0.097	0.014	J
75-15-0	Carbon Disulfide	ND	1.5	0.22	ND	0.47	0.071	
156-60-5	trans-1,2-Dichloroethene	ND	0.75	0.10	ND	0.19	0.026	
75-34-3	1,1-Dichloroethane	ND	0.75	0.11	ND	0.18	0.027	
1634-04-4	Methyl tert-Butyl Ether	ND	0.75	0.087	ND	0.21	0.024	
108-05-4	Vinyl Acetate	ND	6.9	1.7	ND	2.0	0.47	
78-93-3	2-Butanone (MEK)	2.1	1.4	0.15	0.70	0.49	0.051	
156-59-2	cis-1,2-Dichloroethene	ND	0.73	0.10	ND	0.18	0.026	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-7
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01077

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.34 **Final Pressure (psig):** 3.71

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	22	2.9	0.39	6.2	0.80	0.11	
110-54-3	n-Hexane	0.29	0.73	0.15	0.083	0.21	0.043	J
67-66-3	Chloroform	ND	0.73	0.098	ND	0.15	0.020	
109-99-9	Tetrahydrofuran (THF)	1.1	1.4	0.092	0.37	0.47	0.031	J
107-06-2	1,2-Dichloroethane	0.099	0.75	0.081	0.025	0.18	0.020	J
71-55-6	1,1,1-Trichloroethane	ND	0.73	0.091	ND	0.13	0.017	
71-43-2	Benzene	14	0.75	0.11	4.4	0.23	0.033	
56-23-5	Carbon Tetrachloride	0.33	0.72	0.10	0.053	0.11	0.016	J
110-82-7	Cyclohexane	ND	1.4	0.21	ND	0.42	0.060	
78-87-5	1,2-Dichloropropane	ND	0.73	0.091	ND	0.16	0.020	
75-27-4	Bromodichloromethane	ND	0.75	0.11	ND	0.11	0.016	
79-01-6	Trichloroethene	ND	0.73	0.099	ND	0.14	0.018	
123-91-1	1,4-Dioxane	ND	0.73	0.087	ND	0.20	0.024	
142-82-5	n-Heptane	0.22	0.73	0.12	0.054	0.18	0.029	J
10061-01-5	cis-1,3-Dichloropropene	ND	0.75	0.11	ND	0.16	0.025	
108-10-1	4-Methyl-2-pentanone	0.26	1.5	0.10	0.064	0.37	0.025	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.70	0.15	ND	0.16	0.033	
79-00-5	1,1,2-Trichloroethane	ND	0.73	0.075	ND	0.13	0.014	
108-88-3	Toluene	2.0	0.73	0.090	0.52	0.19	0.024	
591-78-6	2-Hexanone	0.34	1.5	0.091	0.083	0.37	0.022	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: MP-7
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01077

Date Collected: 5/11/23
Date Received: 5/12/23
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.34 Final Pressure (psig): 3.71

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.75	0.097	ND	0.088	0.011	
106-93-4	1,2-Dibromoethane	ND	0.72	0.086	ND	0.093	0.011	
127-18-4	Tetrachloroethene	ND	0.73	0.095	ND	0.11	0.014	V
108-90-7	Chlorobenzene	ND	0.73	0.098	ND	0.16	0.021	
100-41-4	Ethylbenzene	1.6	0.73	0.10	0.36	0.17	0.024	
179601-23-1	m,p-Xylenes	1.7	1.5	0.19	0.38	0.35	0.044	
75-25-2	Bromoform	ND	0.75	0.15	ND	0.072	0.015	
100-42-5	Styrene	0.14	0.73	0.12	0.033	0.17	0.028	J
95-47-6	o-Xylene	0.61	0.73	0.11	0.14	0.17	0.024	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.73	0.10	ND	0.11	0.015	
98-82-8	Cumene	0.20	0.75	0.11	0.041	0.15	0.022	J
622-96-8	4-Ethyltoluene	0.21	0.76	0.12	0.042	0.15	0.024	J
108-67-8	1,3,5-Trimethylbenzene	0.22	0.73	0.11	0.045	0.15	0.022	J
95-63-6	1,2,4-Trimethylbenzene	0.57	0.73	0.10	0.12	0.15	0.021	J
100-44-7	Benzyl Chloride	ND	2.9	0.17	ND	0.56	0.032	
541-73-1	1,3-Dichlorobenzene	ND	0.73	0.11	ND	0.12	0.018	
106-46-7	1,4-Dichlorobenzene	0.11	0.73	0.11	0.019	0.12	0.019	J
95-50-1	1,2-Dichlorobenzene	ND	0.75	0.11	ND	0.12	0.018	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	0.18	ND	0.20	0.024	
91-20-3	Naphthalene	ND	0.76	0.18	ND	0.14	0.034	
87-68-3	Hexachlorobutadiene	ND	0.73	0.15	ND	0.069	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-2U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-008

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01226

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0020 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -2.52 Final Pressure (psig): 4.70

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	29,000	420	100	17,000	240	60	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	420	69	ND	85	14	
74-87-3	Chloromethane	1,400	410	68	660	200	33	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	410	67	ND	59	9.6	
75-01-4	Vinyl Chloride	81	410	45	32	160	18	J
106-99-0	1,3-Butadiene	860	420	70	390	190	32	
74-83-9	Bromomethane	ND	410	59	ND	100	15	
75-00-3	Chloroethane	1,400	410	52	550	160	20	
67-64-1	Acetone	160,000	4,200	950	66,000	1,800	400	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	410	64	ND	74	11	
67-63-0	2-Propanol (Isopropyl Alcohol)	48,000	810	170	19,000	330	71	
75-35-4	1,1-Dichloroethene	ND	430	59	ND	110	15	
75-09-2	Methylene Chloride	ND	420	120	ND	120	34	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	430	60	ND	56	7.9	
75-15-0	Carbon Disulfide	1,100	850	130	360	270	41	
156-60-5	trans-1,2-Dichloroethene	ND	430	59	ND	110	15	
75-34-3	1,1-Dichloroethane	ND	430	62	ND	110	15	
1634-04-4	Methyl tert-Butyl Ether	ND	430	50	ND	120	14	
108-05-4	Vinyl Acetate	ND	4,000	950	ND	1,100	270	
78-93-3	2-Butanone (MEK)	120,000	830	87	42,000	280	30	
156-59-2	cis-1,2-Dichloroethene	ND	420	60	ND	110	15	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Stantec
Client Sample ID: SW-2U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-008

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01226

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0020 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -2.52 Final Pressure (psig): 4.70

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	2,400	1,700	220	650	460	62	
110-54-3	n-Hexane	1,000	420	87	290	120	25	
67-66-3	Chloroform	ND	420	56	ND	86	12	
109-99-9	Tetrahydrofuran (THF)	83,000	800	53	28,000	270	18	
107-06-2	1,2-Dichloroethane	390	430	47	97	110	12	J
71-55-6	1,1,1-Trichloroethane	ND	420	52	ND	77	9.6	
71-43-2	Benzene	410,000	4,300	610	130,000	1,300	190	D
56-23-5	Carbon Tetrachloride	ND	410	59	ND	66	9.4	
110-82-7	Cyclohexane	610	830	120	180	240	35	J
78-87-5	1,2-Dichloropropane	ND	420	52	ND	91	11	
75-27-4	Bromodichloromethane	ND	430	61	ND	64	9.1	
79-01-6	Trichloroethene	ND	420	57	ND	78	11	
123-91-1	1,4-Dioxane	13,000	420	50	3,700	120	14	
142-82-5	n-Heptane	1,400	420	68	350	100	16	
10061-01-5	cis-1,3-Dichloropropene	ND	430	66	ND	95	15	
108-10-1	4-Methyl-2-pentanone	10,000	870	58	2,500	210	14	
10061-02-6	trans-1,3-Dichloropropene	ND	410	87	ND	89	19	
79-00-5	1,1,2-Trichloroethane	ND	420	43	ND	77	7.9	
108-88-3	Toluene	34,000	420	52	8,900	110	14	
591-78-6	2-Hexanone	4,100	870	52	1,000	210	13	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Stantec
Client Sample ID: SW-2U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-008

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01226

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0020 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -2.52 Final Pressure (psig): 4.70

Canister Dilution Factor: 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	430	56	ND	50	6.5	
106-93-4	1,2-Dibromoethane	ND	410	49	ND	54	6.4	
127-18-4	Tetrachloroethene	ND	420	55	ND	62	8.1	
108-90-7	Chlorobenzene	570	420	56	120	92	12	
100-41-4	Ethylbenzene	46,000	420	60	11,000	97	14	
179601-23-1	m,p-Xylenes	31,000	870	110	7,200	200	26	
75-25-2	Bromoform	ND	430	87	ND	42	8.5	
100-42-5	Styrene	1,000	420	68	250	99	16	
95-47-6	o-Xylene	12,000	420	61	2,700	97	14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	420	59	ND	61	8.6	
98-82-8	Cumene	5,600	430	61	1,100	87	12	
622-96-8	4-Ethyltoluene	4,300	440	68	870	89	14	
108-67-8	1,3,5-Trimethylbenzene	4,700	420	61	960	86	12	
95-63-6	1,2,4-Trimethylbenzene	12,000	420	59	2,500	86	12	
100-44-7	Benzyl Chloride	ND	1,700	95	ND	320	18	
541-73-1	1,3-Dichlorobenzene	66	420	64	11	70	11	J
106-46-7	1,4-Dichlorobenzene	2,200	420	65	370	70	11	
95-50-1	1,2-Dichlorobenzene	140	430	63	23	71	10	J
120-82-1	1,2,4-Trichlorobenzene	ND	870	100	ND	120	14	
91-20-3	Naphthalene	640	440	100	120	83	20	
87-68-3	Hexachlorobutadiene	ND	420	87	ND	40	8.2	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: SW-2L
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-009

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01001

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00010 Liter(s)

Initial Pressure (psig): -2.74 Final Pressure (psig): 4.00

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	84,000	830	200	49,000	480	120	
75-71-8	Dichlorodifluoromethane (CFC 12)	250	830	140	51	170	27	J
74-87-3	Chloromethane	1,400	810	130	660	390	65	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	810	130	ND	120	19	
75-01-4	Vinyl Chloride	310	800	89	120	310	35	J
106-99-0	1,3-Butadiene	1,700	830	140	750	370	62	
74-83-9	Bromomethane	ND	800	120	ND	200	30	
75-00-3	Chloroethane	5,400	810	100	2,000	310	39	
67-64-1	Acetone	150,000	8,200	1,900	62,000	3,500	790	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	810	130	ND	140	22	
67-63-0	2-Propanol (Isopropyl Alcohol)	25,000	1,600	340	10,000	650	140	
75-35-4	1,1-Dichloroethene	ND	840	120	ND	210	29	
75-09-2	Methylene Chloride	ND	830	230	ND	240	67	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	840	120	ND	110	15	
75-15-0	Carbon Disulfide	860	1,700	250	280	540	80	J
156-60-5	trans-1,2-Dichloroethene	ND	840	120	ND	210	29	
75-34-3	1,1-Dichloroethane	ND	840	120	ND	210	30	
1634-04-4	Methyl tert-Butyl Ether	ND	840	98	ND	230	27	
108-05-4	Vinyl Acetate	ND	7,800	1,900	ND	2,200	530	
78-93-3	2-Butanone (MEK)	140,000	1,600	170	46,000	550	58	
156-59-2	cis-1,2-Dichloroethene	370	830	120	94	210	30	J

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Stantec
Client Sample ID: SW-2L
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-009

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01001

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00010 Liter(s)

Initial Pressure (psig): -2.74 **Final Pressure (psig):** 4.00

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	1,100	3,300	440	300	910	120	J
110-54-3	n-Hexane	2,800	830	170	790	230	49	
67-66-3	Chloroform	ND	830	110	ND	170	23	
109-99-9	Tetrahydrofuran (THF)	91,000	1,600	100	31,000	530	35	
107-06-2	1,2-Dichloroethane	840	840	92	210	210	23	J
71-55-6	1,1,1-Trichloroethane	ND	830	100	ND	150	19	
71-43-2	Benzene	1,100,000	8,400	1,200	330,000	2,600	380	D
56-23-5	Carbon Tetrachloride	ND	810	120	ND	130	18	
110-82-7	Cyclohexane	2,300	1,600	230	680	480	68	
78-87-5	1,2-Dichloropropane	ND	830	100	ND	180	22	
75-27-4	Bromodichloromethane	ND	840	120	ND	130	18	
79-01-6	Trichloroethene	ND	830	110	ND	150	21	
123-91-1	1,4-Dioxane	ND	830	98	ND	230	27	
142-82-5	n-Heptane	5,000	830	130	1,200	200	32	
10061-01-5	cis-1,3-Dichloropropene	ND	840	130	ND	190	29	
108-10-1	4-Methyl-2-pentanone	12,000	1,700	110	2,800	420	28	
10061-02-6	trans-1,3-Dichloropropene	ND	800	170	ND	180	38	
79-00-5	1,1,2-Trichloroethane	ND	830	84	ND	150	15	
108-88-3	Toluene	84,000	830	100	22,000	220	27	
591-78-6	2-Hexanone	3,700	1,700	100	890	420	25	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-2L
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-009

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01001

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00010 Liter(s)

Initial Pressure (psig): -2.74 Final Pressure (psig): 4.00

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	840	110	ND	99	13	
106-93-4	1,2-Dibromoethane	ND	810	97	ND	110	13	
127-18-4	Tetrachloroethene	230	830	110	34	120	16	J
108-90-7	Chlorobenzene	1,300	830	110	280	180	24	
100-41-4	Ethylbenzene	110,000	830	120	26,000	190	27	
179601-23-1	m,p-Xylenes	75,000	1,700	220	17,000	400	50	
75-25-2	Bromoform	ND	840	170	ND	82	17	
100-42-5	Styrene	3,100	830	130	730	190	32	
95-47-6	o-Xylene	28,000	830	120	6,400	190	28	
79-34-5	1,1,2,2-Tetrachloroethane	ND	830	120	ND	120	17	
98-82-8	Cumene	12,000	840	120	2,300	170	24	
622-96-8	4-Ethyltoluene	8,600	860	130	1,700	170	27	
108-67-8	1,3,5-Trimethylbenzene	9,500	830	120	1,900	170	24	
95-63-6	1,2,4-Trimethylbenzene	23,000	830	120	4,600	170	23	
100-44-7	Benzyl Chloride	ND	3,300	190	ND	630	36	
541-73-1	1,3-Dichlorobenzene	ND	830	120	ND	140	21	
106-46-7	1,4-Dichlorobenzene	3,500	830	130	590	140	21	
95-50-1	1,2-Dichlorobenzene	190	840	120	31	140	21	J
120-82-1	1,2,4-Trichlorobenzene	ND	1,700	200	ND	230	27	
91-20-3	Naphthalene	560	860	200	110	160	39	J
87-68-3	Hexachlorobutadiene	ND	830	170	ND	78	16	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: SW-1U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-010

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01256

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -3.01 Final Pressure (psig): 3.98

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	43,000	850	210	25,000	490	120	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	850	140	ND	170	28	
74-87-3	Chloromethane	2,200	830	140	1,000	400	67	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	830	130	ND	120	19	
75-01-4	Vinyl Chloride	230	820	91	89	320	36	J
106-99-0	1,3-Butadiene	1,200	850	140	560	380	64	
74-83-9	Bromomethane	ND	820	120	ND	210	31	
75-00-3	Chloroethane	2,300	830	110	860	320	40	
67-64-1	Acetone	300,000	8,400	1,900	130,000	3,600	810	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	830	130	ND	150	23	
67-63-0	2-Propanol (Isopropyl Alcohol)	130,000	1,600	350	55,000	670	140	
75-35-4	1,1-Dichloroethene	ND	860	120	ND	220	30	
75-09-2	Methylene Chloride	ND	850	240	ND	240	69	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	860	120	ND	110	16	
75-15-0	Carbon Disulfide	1,900	1,700	260	600	550	82	
156-60-5	trans-1,2-Dichloroethene	ND	860	120	ND	220	30	
75-34-3	1,1-Dichloroethane	ND	860	120	ND	210	31	
1634-04-4	Methyl tert-Butyl Ether	ND	860	100	ND	240	28	
108-05-4	Vinyl Acetate	ND	8,000	1,900	ND	2,300	550	
78-93-3	2-Butanone (MEK)	230,000	1,700	180	79,000	560	60	
156-59-2	cis-1,2-Dichloroethene	ND	850	120	ND	210	30	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Stantec
Client Sample ID: SW-1U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-010

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01256

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -3.01 **Final Pressure (psig):** 3.98

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	5,800	3,400	450	1,600	930	120	
110-54-3	n-Hexane	1,700	850	180	490	240	50	
67-66-3	Chloroform	ND	850	110	ND	170	23	
109-99-9	Tetrahydrofuran (THF)	140,000	1,600	110	49,000	540	36	
107-06-2	1,2-Dichloroethane	680	860	94	170	210	23	J
71-55-6	1,1,1-Trichloroethane	ND	850	110	ND	160	19	
71-43-2	Benzene	510,000	4,300	620	160,000	1,400	190	D
56-23-5	Carbon Tetrachloride	ND	830	120	ND	130	19	
110-82-7	Cyclohexane	1,000	1,700	240	300	490	70	J
78-87-5	1,2-Dichloropropane	ND	850	110	ND	180	23	
75-27-4	Bromodichloromethane	ND	860	120	ND	130	18	
79-01-6	Trichloroethene	ND	850	120	ND	160	21	
123-91-1	1,4-Dioxane	ND	850	100	ND	240	28	
142-82-5	n-Heptane	ND	850	140	ND	210	33	
10061-01-5	cis-1,3-Dichloropropene	ND	860	130	ND	190	29	
108-10-1	4-Methyl-2-pentanone	17,000	1,800	120	4,200	430	29	
10061-02-6	trans-1,3-Dichloropropene	ND	820	180	ND	180	39	
79-00-5	1,1,2-Trichloroethane	ND	850	86	ND	160	16	
108-88-3	Toluene	57,000	850	100	15,000	230	28	
591-78-6	2-Hexanone	7,300	1,800	110	1,800	430	26	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Stantec
Client Sample ID: SW-1U
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P2302140-010

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS01256

Date Collected: 5/10/23
Date Received: 5/12/23
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.0010 Liter(s)
 0.00020 Liter(s)

Initial Pressure (psig): -3.01 **Final Pressure (psig):** 3.98

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	860	110	ND	100	13	
106-93-4	1,2-Dibromoethane	ND	830	99	ND	110	13	
127-18-4	Tetrachloroethene	180	850	110	27	130	16	J
108-90-7	Chlorobenzene	970	850	110	210	180	25	
100-41-4	Ethylbenzene	75,000	850	120	17,000	200	28	
179601-23-1	m,p-Xylenes	50,000	1,800	220	11,000	410	52	
75-25-2	Bromoform	ND	860	180	ND	84	17	
100-42-5	Styrene	1,800	850	140	410	200	32	
95-47-6	o-Xylene	18,000	850	120	4,200	200	28	
79-34-5	1,1,2,2-Tetrachloroethane	ND	850	120	ND	120	17	
98-82-8	Cumene	8,900	860	120	1,800	180	25	
622-96-8	4-Ethyltoluene	6,300	880	140	1,300	180	28	
108-67-8	1,3,5-Trimethylbenzene	6,900	850	120	1,400	170	25	
95-63-6	1,2,4-Trimethylbenzene	19,000	850	120	3,800	170	24	
100-44-7	Benzyl Chloride	ND	3,400	190	ND	650	37	
541-73-1	1,3-Dichlorobenzene	ND	850	130	ND	140	21	
106-46-7	1,4-Dichlorobenzene	3,200	850	130	540	140	22	
95-50-1	1,2-Dichlorobenzene	270	860	130	45	140	21	J
120-82-1	1,2,4-Trichlorobenzene	ND	1,800	210	ND	240	28	
91-20-3	Naphthalene	910	880	210	170	170	40	
87-68-3	Hexachlorobutadiene	ND	850	180	ND	80	17	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.52	0.086	ND	0.25	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.52	0.084	ND	0.074	0.012	
75-01-4	Vinyl Chloride	ND	0.51	0.057	ND	0.20	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.51	0.074	ND	0.13	0.019	
75-00-3	Chloroethane	ND	0.52	0.066	ND	0.20	0.025	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.52	0.081	ND	0.093	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	0.22	ND	0.42	0.090	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.34	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.54	0.078	ND	0.13	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.0	1.2	ND	1.4	0.34	
78-93-3	2-Butanone (MEK)	ND	1.0	0.11	ND	0.35	0.037	
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	ND	2.1	0.28	ND	0.58	0.078	
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.53	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	0.067	ND	0.34	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.53	0.066	ND	0.097	0.012	
71-43-2	Benzene	ND	0.54	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.52	0.074	ND	0.083	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.31	0.044	
78-87-5	1,2-Dichloropropane	ND	0.53	0.066	ND	0.11	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.53	0.072	ND	0.099	0.013	
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017	
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.54	0.083	ND	0.12	0.018	
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.073	ND	0.27	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	0.11	ND	0.11	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.53	0.054	ND	0.097	0.0099	
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	1.1	0.066	ND	0.27	0.016	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.52	0.062	ND	0.068	0.0081	
127-18-4	Tetrachloroethene	ND	0.53	0.069	ND	0.078	0.010	V
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	0.074	ND	0.077	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.55	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	2.1	0.12	ND	0.41	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.53	0.080	ND	0.088	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	V
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.13	ND	0.15	0.018	
91-20-3	Naphthalene	ND	0.55	0.13	ND	0.10	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/22/23
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	MDL µg/m ³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.52	0.086	ND	0.25	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.52	0.084	ND	0.074	0.012	
75-01-4	Vinyl Chloride	ND	0.51	0.057	ND	0.20	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.51	0.074	ND	0.13	0.019	
75-00-3	Chloroethane	ND	0.52	0.066	ND	0.20	0.025	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.52	0.081	ND	0.093	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	0.22	ND	0.42	0.090	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.34	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.54	0.078	ND	0.13	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.0	1.2	ND	1.4	0.34	
78-93-3	2-Butanone (MEK)	ND	1.0	0.11	ND	0.35	0.037	
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/22/23
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	ND	2.1	0.28	ND	0.58	0.078	
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.53	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	0.067	ND	0.34	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.53	0.066	ND	0.097	0.012	
71-43-2	Benzene	ND	0.54	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.52	0.074	ND	0.083	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.31	0.044	
78-87-5	1,2-Dichloropropane	ND	0.53	0.066	ND	0.11	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.53	0.072	ND	0.099	0.013	
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017	
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.54	0.083	ND	0.12	0.018	
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.073	ND	0.27	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	0.11	ND	0.11	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.53	0.054	ND	0.097	0.0099	
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	1.1	0.066	ND	0.27	0.016	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Stantec
Client Sample ID: Method Blank
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Wida Ang
 Sample Type: 6.0 L Silonite Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 5/22/23
 Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.52	0.062	ND	0.068	0.0081	
127-18-4	Tetrachloroethene	ND	0.53	0.069	ND	0.078	0.010	
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	0.074	ND	0.077	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.55	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	2.1	0.12	ND	0.41	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.53	0.080	ND	0.088	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.13	ND	0.15	0.018	
91-20-3	Naphthalene	ND	0.55	0.13	ND	0.10	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: Stantec
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140

Test Code: EPA TO-15 / EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao/Wida Ang
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Date(s) Collected: 5/10 - 5/11/23
Date(s) Received: 5/12/23
Date(s) Analyzed: 5/19 - 5/22/23

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P230519-MB	107	92	91	70-130	
Method Blank	P230522-MB	108	92	92	70-130	
Lab Control Sample	P230519-LCS	108	91	95	70-130	
Lab Control Sample	P230522-LCS	110	92	94	70-130	
Duplicate Lab Control Sample	P230519-DLCS	108	89	94	70-130	
Duplicate Lab Control Sample	P230522-DLCS	109	91	95	70-130	
MP-1	P2302140-001	107	90	92	70-130	
MP-2	P2302140-002	106	90	92	70-130	
MP-3	P2302140-003	108	90	92	70-130	
MP-4	P2302140-004	108	89	91	70-130	
MP-5	P2302140-005	108	89	92	70-130	
MP-6	P2302140-006	107	89	91	70-130	
MP-7	P2302140-007	108	90	91	70-130	
SW-2U	P2302140-008	108	81	86	70-130	
SW-2L	P2302140-009	109	81	85	70-130	
SW-1U	P2302140-010	109	85	90	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-DLCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
115-07-1	Propene	212	191	187	90	88	56-128	2	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	212	172	168	81	79	71-112	3	25	
74-87-3	Chloromethane	210	173	168	82	80	53-126	2	25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	214	167	163	78	76	62-121	3	25	
75-01-4	Vinyl Chloride	210	181	181	86	86	63-123	0	25	
106-99-0	1,3-Butadiene	210	193	191	92	91	63-135	1	25	
74-83-9	Bromomethane	210	176	170	84	81	71-112	4	25	
75-00-3	Chloroethane	212	185	177	87	83	66-117	5	25	
67-64-1	Acetone	1,060	854	802	81	76	60-117	6	25	
75-69-4	Trichlorofluoromethane (CFC 11)	210	170	164	81	78	71-114	4	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	414	396	374	96	90	61-124	6	25	
75-35-4	1,1-Dichloroethene	204	176	168	86	82	74-114	5	25	
75-09-2	Methylene Chloride	204	162	153	79	75	75-112	5	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	210	168	162	80	77	73-114	4	25	
75-15-0	Carbon Disulfide	430	361	341	84	79	70-113	6	25	
156-60-5	trans-1,2-Dichloroethene	216	195	186	90	86	76-119	5	25	
75-34-3	1,1-Dichloroethane	216	181	172	84	80	70-114	5	25	
1634-04-4	Methyl tert-Butyl Ether	216	184	178	85	82	72-118	4	25	
108-05-4	Vinyl Acetate	1,100	1220	1190	111	108	56-137	3	25	
78-93-3	2-Butanone (MEK)	414	345	339	83	82	74-121	1	25	
156-59-2	cis-1,2-Dichloroethene	214	178	177	83	83	73-117	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-DLCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
141-78-6	Ethyl Acetate	398	319	316	80	79	59-161	1	25	
110-54-3	n-Hexane	212	175	173	83	82	55-130	1	25	
67-66-3	Chloroform	216	170	167	79	77	71-114	3	25	
109-99-9	Tetrahydrofuran (THF)	402	329	323	82	80	73-114	2	25	
107-06-2	1,2-Dichloroethane	204	183	181	90	89	71-119	1	25	
71-55-6	1,1,1-Trichloroethane	210	171	172	81	82	73-119	1	25	
71-43-2	Benzene	204	169	169	83	83	72-113	0	25	
56-23-5	Carbon Tetrachloride	210	183	182	87	87	67-123	0	25	
110-82-7	Cyclohexane	426	326	324	77	76	70-119	1	25	
78-87-5	1,2-Dichloropropane	214	171	171	80	80	70-118	0	25	
75-27-4	Bromodichloromethane	216	181	180	84	83	74-119	1	25	
79-01-6	Trichloroethene	212	160	160	75	75	74-115	0	25	
123-91-1	1,4-Dioxane	212	190	190	90	90	77-124	0	25	
142-82-5	n-Heptane	214	173	173	81	81	70-119	0	25	
10061-01-5	cis-1,3-Dichloropropene	212	208	208	98	98	81-126	0	25	
108-10-1	4-Methyl-2-pentanone	426	406	407	95	96	73-129	1	25	
10061-02-6	trans-1,3-Dichloropropene	196	185	185	94	94	80-127	0	25	
79-00-5	1,1,2-Trichloroethane	216	176	176	81	81	78-117	0	25	
108-88-3	Toluene	214	153	150	71	70	70-118	1	25	
591-78-6	2-Hexanone	426	400	394	94	92	74-132	2	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

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Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230519-DLCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/19/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
124-48-1	Dibromochloromethane	214	163	160	76	75	69-137	1	25	
106-93-4	1,2-Dibromoethane	204	157	155	77	76	76-128	1	25	
127-18-4	Tetrachloroethene	214	151	147	71	69	63-130	3	25	
108-90-7	Chlorobenzene	216	149	146	69	68	70-118	1	25	L
100-41-4	Ethylbenzene	218	157	154	72	71	71-123	1	25	
179601-23-1	m,p-Xylenes	430	316	311	73	72	67-127	1	25	
75-25-2	Bromoform	218	176	173	81	79	65-149	3	25	
100-42-5	Styrene	214	165	163	77	76	76-132	1	25	
95-47-6	o-Xylene	216	156	154	72	71	69-124	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	216	159	156	74	72	69-128	3	25	
98-82-8	Cumene	212	152	149	72	70	69-125	3	25	
622-96-8	4-Ethyltoluene	218	162	156	74	72	69-127	3	25	
108-67-8	1,3,5-Trimethylbenzene	216	156	153	72	71	66-129	1	25	
95-63-6	1,2,4-Trimethylbenzene	212	157	154	74	73	63-142	1	25	
100-44-7	Benzyl Chloride	428	399	395	93	92	73-145	1	25	
541-73-1	1,3-Dichlorobenzene	214	150	147	70	69	67-136	1	25	
106-46-7	1,4-Dichlorobenzene	214	148	145	69	68	63-134	1	25	
95-50-1	1,2-Dichlorobenzene	212	148	145	70	68	64-139	3	25	
120-82-1	1,2,4-Trichlorobenzene	440	315	312	72	71	62-154	1	25	
91-20-3	Naphthalene	220	177	176	80	80	62-156	0	25	
87-68-3	Hexachlorobutadiene	218	147	146	67	67	55-142	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.
 L = Laboratory control sample recovery outside the specified limits, results may be biased high.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-DLCS

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
115-07-1	Propene	212	192	188	91	89	56-128	2	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	212	175	170	83	80	71-112	4	25	
74-87-3	Chloromethane	210	167	166	80	79	53-126	1	25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	214	171	166	80	78	62-121	3	25	
75-01-4	Vinyl Chloride	210	184	183	88	87	63-123	1	25	
106-99-0	1,3-Butadiene	210	196	193	93	92	63-135	1	25	
74-83-9	Bromomethane	210	179	172	85	82	71-112	4	25	
75-00-3	Chloroethane	212	184	178	87	84	66-117	4	25	
67-64-1	Acetone	1,060	849	802	80	76	60-117	5	25	
75-69-4	Trichlorofluoromethane (CFC 11)	210	174	166	83	79	71-114	5	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	414	391	370	94	89	61-124	5	25	
75-35-4	1,1-Dichloroethene	204	172	167	84	82	74-114	2	25	
75-09-2	Methylene Chloride	204	156	153	76	75	75-112	1	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	210	167	163	80	78	73-114	3	25	
75-15-0	Carbon Disulfide	430	354	342	82	80	70-113	2	25	
156-60-5	trans-1,2-Dichloroethene	216	189	186	88	86	76-119	2	25	
75-34-3	1,1-Dichloroethane	216	175	172	81	80	70-114	1	25	
1634-04-4	Methyl tert-Butyl Ether	216	180	178	83	82	72-118	1	25	
108-05-4	Vinyl Acetate	1,100	1210	1190	110	108	56-137	2	25	
78-93-3	2-Butanone (MEK)	414	341	340	82	82	74-121	0	25	
156-59-2	cis-1,2-Dichloroethene	214	179	175	84	82	73-117	2	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-DLCS

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
141-78-6	Ethyl Acetate	398	317	314	80	79	59-161	1	25	
110-54-3	n-Hexane	212	176	172	83	81	55-130	2	25	
67-66-3	Chloroform	216	170	168	79	78	71-114	1	25	
109-99-9	Tetrahydrofuran (THF)	402	325	322	81	80	73-114	1	25	
107-06-2	1,2-Dichloroethane	204	187	183	92	90	71-119	2	25	
71-55-6	1,1,1-Trichloroethane	210	173	173	82	82	73-119	0	25	
71-43-2	Benzene	204	168	169	82	83	72-113	1	25	
56-23-5	Carbon Tetrachloride	210	185	186	88	89	67-123	1	25	
110-82-7	Cyclohexane	426	322	322	76	76	70-119	0	25	
78-87-5	1,2-Dichloropropane	214	168	169	79	79	70-118	0	25	
75-27-4	Bromodichloromethane	216	182	182	84	84	74-119	0	25	
79-01-6	Trichloroethene	212	162	162	76	76	74-115	0	25	
123-91-1	1,4-Dioxane	212	188	190	89	90	77-124	1	25	
142-82-5	n-Heptane	214	172	173	80	81	70-119	1	25	
10061-01-5	cis-1,3-Dichloropropene	212	209	209	99	99	81-126	0	25	
108-10-1	4-Methyl-2-pentanone	426	403	404	95	95	73-129	0	25	
10061-02-6	trans-1,3-Dichloropropene	196	185	186	94	95	80-127	1	25	
79-00-5	1,1,2-Trichloroethane	216	175	176	81	81	78-117	0	25	
108-88-3	Toluene	214	156	154	73	72	70-118	1	25	
591-78-6	2-Hexanone	426	406	400	95	94	74-132	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

Client: Stantec
Client Sample ID: Duplicate Lab Control Sample
Client Project ID: Bristol, VA / 182603807

ALS Project ID: P2302140
 ALS Sample ID: P230522-DLCS

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/22/23
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount	Result		% Recovery		ALS	RPD	RPD	Data
		LCS / DLCS µg/m³	LCS µg/m³	DLCS µg/m³	LCS	DLCS	Acceptance Limits			
124-48-1	Dibromochloromethane	214	167	166	78	78	69-137	0	25	L
106-93-4	1,2-Dibromoethane	204	159	159	78	78	76-128	0	25	
127-18-4	Tetrachloroethene	214	155	154	72	72	63-130	0	25	
108-90-7	Chlorobenzene	216	152	150	70	69	70-118	1	25	
100-41-4	Ethylbenzene	218	161	159	74	73	71-123	1	25	
179601-23-1	m,p-Xylenes	430	324	319	75	74	67-127	1	25	L
75-25-2	Bromoform	218	183	180	84	83	65-149	1	25	
100-42-5	Styrene	214	168	166	79	78	76-132	1	25	
95-47-6	o-Xylene	216	160	158	74	73	69-124	1	25	
79-34-5	1,1,2,2-Tetrachloroethane	216	161	159	75	74	69-128	1	25	
98-82-8	Cumene	212	157	155	74	73	69-125	1	25	L
622-96-8	4-Ethyltoluene	218	163	164	75	75	69-127	0	25	
108-67-8	1,3,5-Trimethylbenzene	216	159	158	74	73	66-129	1	25	
95-63-6	1,2,4-Trimethylbenzene	212	161	159	76	75	63-142	1	25	
100-44-7	Benzyl Chloride	428	411	412	96	96	73-145	0	25	
541-73-1	1,3-Dichlorobenzene	214	154	152	72	71	67-136	1	25	L
106-46-7	1,4-Dichlorobenzene	214	151	149	71	70	63-134	1	25	
95-50-1	1,2-Dichlorobenzene	212	151	150	71	71	64-139	0	25	
120-82-1	1,2,4-Trichlorobenzene	440	311	317	71	72	62-154	1	25	
91-20-3	Naphthalene	220	172	176	78	80	62-156	3	25	
87-68-3	Hexachlorobutadiene	218	150	151	69	69	55-142	0	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly.
 L = Laboratory control sample recovery outside the specified limits, results may be biased low.