333 West Washington Street, Suite 300
Syracuse, NY 13202
Telephone: 315-431-4610
www.eaest.com

2 May 2025

Mr. Payson Long
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action
625 Broadway
Albany, New York 12233

RE: National Heatset Printing Site
Operation & Maintenance and Monitoring Report (January – March 2025)
Soil Vapor Extraction System, In-Well Stripping Systems, and Groundwater Monitoring
1 Adams Boulevard, Town of Babylon, New York
New York State Department of Environmental Conservation Site No. 152140
EA Project No. 1602518

Dear Mr. Long:

This letter report provides an overview of the ongoing operation of the site soil vapor extraction (SVE) system at the National Heatset Printing Site in the Town of Babylon, New York (**Figure 1**). EA Engineering and Geology, P.C. (EA) initially assumed management of the onsite SVE system under New York State Department of Environmental Conservation (NYSDEC) Work Assignment Number (No.) D004441-29 in 2007. EA performed site management for the site from 2007 to February 2020 under multiple contracts; Environmental Assessments and Remediation performed site management from March to December 2020. EA is currently performing site management under NYSDEC Work Assignment No. D009806-18, which was approved on 18 November 2020. EA's assignment includes quarterly visits for the SVE system, quarterly system air sampling, and every fifth quarter groundwater sampling. The activities are being conducted under the NYSDEC State Superfund Standby Contract. Remedial system details are presented in the NYSDEC-approved Site Management Plan,[1] which includes the Operation & Maintenance (O&M) Manual for each system.

The Site Visit and SVE System Maintenance Log table shows dates during the reporting period (January – March 2025), that an O&M or site visit was performed.

[1] EA. 2022. *National Heatset Printing Co. State Superfund Site, Suffolk County, Town of Babylon, New York. Site Management Plan – Revision 1. Draft.* February.

Site Visit and SVE System Maintenance Log

Date	Purpose	Personnel
26 February 2025	Quarterly visit. Conducted O&M on SVE System. Collected quarterly vapor sample from the SVE system.	EA

One quarterly vapor sample was collected from the SVE System on 26 February 2025. Due to a faulty flow controller on the effluent air canister, only one air sample was collected from the influent.

1. SOIL VAPOR EXTRACTION SYSTEM OPERATION

1.1 SOIL VAPOR EXTRACTION

The SVE system was operational for a total of 1,684 hours out of an available 1,684 hours (100 percent of the total available) from 18 December 2024 to 26 February 2025. Quarterly O&M was performed on the SVE system on 26 February 2025. A summary of the operational time associated with the SVE system is presented in **Table 1**. The location of the SVE system is presented in **Figure 2**.

2. SOIL VAPOR EXTRACTION SYSTEM PERFORMANCE MONITORING

2.1 SOIL VAPOR EXTRACTION SYSTEM

Operational data for this period is based on the system measurements and vapor sample data collected during the 26 February 2025 quarterly visit. EA operated the SVE system with all five legs. The SVE blower flow rate during the 26 February 2025 site visit was 253 cubic feet per minute. Vapor points at 1 Adams Boulevard were monitored during the 26 February 2025 quarterly O&M visit. Vapor point monitoring data is included on the system data sheets, provided in **Attachment A**. A complete set of operational data collected is presented in **Table 2**.

3. RESULTS

3.1 SOIL VAPOR EXTRACTION SYSTEM

The SVE System air samples were collected on 26 February 2025 as part of the quarterly monitoring event. EA personnel collected 4-hour composite air samples from the system influent and effluent using Summa® canisters and submitted the samples to ALS Environmental for analysis for volatile organic compounds via U.S. Environmental Protection Agency Method TO-15. Due to an error with the effluent canister, the amount of tetrachloroethene, trichloroethene, and dichloroethene discharged during the first quarter 2025 toward the permitted annual discharge limits cannot be determined. However, the influent sampling results represent a negligible amount of tetrachloroethene, trichloroethene, and dichloroethene toward the permitted annual discharge limits of 270 pounds (lb), 120 lb, and 5,510 lb, respectively. A summary of the field monitoring results, laboratory air discharge analytical results, and estimated mass recovery are presented in

Table 2. Laboratory data reports are presented in **Attachment B**.

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the data collected from the remediation systems during this reporting period, EA recommends continued operation of the SVE system. Historical TCE and DCE concentrations in the effluent are equal to, or higher, than influent concentrations, indicating that the granular activated carbon is saturated and has reached its absorption capacity. Contaminant mass recovery has decreased to the point where emissions without treatment are within the permissible limits (6 New York Code of Rules and Regulations Part 212-2.2 Table 2). EA recommends removal of the spent carbon without replacement at this time.

Both onsite density-driven convection (DDC) Systems and the offsite DDC System have been shut down and remain off, as recommended in the Corrective Measures Work Plan[2] prepared by EA and approved by NYSDEC. Remedial Site Optimization investigation activities are being conducted as detailed in the work plan prepared by EA.

Please do not hesitate to contact me at 315-565-6557 with any questions you might have regarding this report.

Sincerely,

EA SCIENCE AND TECHNOLOGY

Megan Miller

Megan Miller, EIT
Project Manager

Tables

1 Treatment System Run Time

2 Summary of Estimated Recovery Rate via Soil Vapor Extraction System

Figures

1 Site Location Map

2 Onsite Treatment System Location SVE System

2 EA. 2022. *Corrective Measures Work Plan*. January.

Attachments

A System Data Sheets

B Laboratory Analytical Data – System Vapor Samples

Tables

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Table 1. Treatment System Run Time

System Readings						
		SVE System				
		SVE Blower				
Date	Notes	Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)
08/22/22		62717.91	16:48	3317	3318	100
Quarterly Run-Time				**3317**	**3318**	**100**
11/30/22		65110.00	7:30	2393	2393	100
Quarterly Run-Time				**2393**	**2393**	**100**
02/21/23		67105.41	10:23	1995	1995	100
Quarterly Run-Time				**1995**	**1995**	**100**
04/26/23		68644.87	11:00	3535	3532	100
Quarterly Run-Time				**3535**	**3532**	**100**
07/13/23		70508.46	11:00	1864	1872	99.6
Quarterly Run-Time				**1864**	**1872**	**99.6**
11/20/23		73637.21	12:30	3129	3122	100
Quarterly Run-Time				**3129**	**3122**	**100**
02/16/24		75744.64	8:00	2107	2108	100
Quarterly Run-Time				**2107**	**2108**	**100**
05/16/24		76749.99	7:30	1005	2159	47
Quarterly Run-Time				**1005**	**2159**	**47**
09/12/24		76843.65	13:00	94	2861	3
Quarterly Run-Time				**94**	**2861**	**3**
12/18/24		78040.25	9:10	1197	2324	52
Quarterly Run-Time				**1197**	**2324**	**52**
02/26/25		79723.98	13:00	1684	1684	100
Quarterly Run-Time				**1684**	**1684**	**100**

Notes:

No O&M events took place February 2020 during transition from EA to EAR - System was shut off between January and March 2020 events - Dates/Times/Hours during this period are assumptions used as place holders

% = Percent

Shaded cells indicate O&M events performed during a previous reporting period.

Table 2. Summary of Estimated Recovery Rate via Soil Vapor Extraction System

Date	Field/System Data			Elapsed Run-Time (day)	Laboratory Results						Mass Discharged						Recovery Based on Laboratory Results					
					SYS INFLUENT			SYS EFFLUENT														
	SVE Blower Flow Rate (cfm)	Applied Vacuum (in. H_20)	System Discharge VOC Concentration (ppmv)		PCE (mg/m^3)	TCE (mg/m^3)	*cis* -1,2-DCE (mg/m^3)	PCE (mg/m^3)	TCE (mg/m^3)	*cis* -1,2-DCE (mg/m^3)	PCE Discharge During Period: lb/hr	PCE Discharge During Period (lb)	TCE Discharge During Period (lb/hr)	TCE Discharge During Period (lb)	*cis* -1,2-DCE Discharge During Period (lb/hr)	*cis* -1,2-DCE Discharge During Period (lb)	PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	*cis* -1,2-DCE Recovery During Period (lb/hr)	*cis* -1,2-DCE Recovery During Period (lb)
01/26/21	160	80	0.12	25	0.1490	0.0097	0.00595	0.01080	0.0008	0.0075	0.0000	0.0000	0.0000	0.0057	0.0000	0.0519	0.0001	1.0267	0.0000	0.0666	0.0000	0.0023
02/24/21	160	80	0.02	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/21	160	80	0.01	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04/19/21	173	75	0.00	47	0.0062	0.0011	0.0031	0.0052	0.0003	0.0166	0.0000	0.0144	0.0000	0.0007	0.00001	0.0457	0.0000	0.0172	0.0000	0.0029	0.0000	0.0084
05/19/21	250	70	0.00	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/15/21	250	68	0.00	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/20/21	250	67	0.00	30	0.0024	0.0016	0.0048	0.0011	0.0002	0.0103	0.0000	0.0034	0.0000	0.0005	0.00001	0.0324	0.0000	0.0077	0.0000	0.0049	0.0000	0.0150
08/18/21	250	16	0.00	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/22/21	250	64	0.00	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/20/21	250	64	0.00	99	0.0841	0.0086	0.0075	0.0026	0.0002	0.0159	0.0000	0.0122	0.0000	0.0008	0.00001	0.0754	0.0001	0.3989	0.0000	0.0408	0.0000	0.0357
11/18/21	250	60	0.00	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/14/21	250	51	0.00	83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/18/22	250	61	0.00	35	0.0115	0.0048	0.0052	0.0008	0.0002	0.0020	0.0000	0.0006	0.0000	0.0001	0.00000	0.0016	0.0000	0.0090	0.0000	0.0037	0.0000	0.0040
04/06/22	230	58	0.00	29	0.0482	0.0047	0.0044	0.0044	0.0012	0.0198	0.0000	0.0027	0.0000	0.0007	0.00002	0.0120	0.0000	0.0291	0.0000	0.0028	0.0000	0.0026
08/22/22	241	50	0.00	138	0.3510	0.0564	0.0452	0.0332	0.0699	0.0186	0.0000	0.0995	0.0001	0.2095	0.00002	0.0557	0.0003	1.0519	0.0001	0.1690	0.0000	0.1355
11/30/22	224	5	0.00	100	0.0319	0.0091	0.0044	0.0610	0.0285	0.0139	0.0001	0.1226	0.0000	0.0573	0.00001	0.0279	0.0000	0.0641	0.0000	0.1219	0.0000	0.0088
02/21/23	323	50	0.00	83	0.0556	0.0037	0.0022	0.0448	0.0274	0.0048	0.0001	0.1082	0.0000	0.0662	0.00001	0.0115	0.0001	0.1343	0.0000	0.0090	0.0000	0.0054
4/26/2023	266	60	0.00	147	0.0089	0.0029	0.0022	0.0330	0.0160	0.0023	0.0000	0.1163	0.0000	0.0564	0.00000	0.0081	0.0000	0.0314	0.0000	0.0102	0.0000	0.0078
7/13/2023	591	60	0.00	78	0.2600	0.0520	0.0150	0.0490	0.0770	0.0120	0.0001	0.2024	0.0002	0.3180	0.00003	0.0496	0.0006	1.0738	0.0001	0.2148	0.0000	0.0619
11/20/2023	205	60	0.00	130	0.0710	0.0170	0.0047	0.0360	0.0520	0.0092	0.0000	0.0868	0.0000	0.1253	0.00001	0.0222	0.0001	0.1711	0.0000	0.0410	0.0000	0.0113
2/16/2024	503	60	0.00	88	1.4000	0.0350	0.0088	0.0490	0.0200	0.0009	0.0001	0.1947	0.0000	0.0795	0.00000	0.0035	0.0026	5.5626	0.0001	0.1391	0.0000	0.0350
5/16/2024	298	30	50.80	42	0.0180	0.0072	0.0012	0.9300	0.0025	0.0000	0.0010	1.0442	0.0000	0.0028	0.00000	0.0000	0.0000	0.0202	0.0000	0.0081	0.0000	0.0013
9/12/2024	232	40	0.00	4	0.0000	0.0000	0.0000	0.0015	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12/18/2024	376	60	0.40	50	0.5580	0.0216	0.0053	0.3150	0.1020	0.0218	0.0004	0.5313	0.0001	0.1720	0.00003	0.0368	0.0008	0.9412	0.0000	0.0364	0.0000	0.0089
2/26/2025[1]	253	45	1.40	70	0.2900	0.0250	0.0053	--	--	--	0.0003	0.4632	0.0000	0.0399	0.00001	0.0085	0.0003	0.4632	0.0000	0.0399	0.0000	0.0085
										PERIOD TOTALS =		**0.4632**		**0.0399**		**0.0085**		**0.4632**		**0.0399**		**0.0085**

Notes:

cfm = Cubic foot (feet) per minute
cis -1,2-DCE = cis-1,2-Dichloroethene
in. H_20 = Inch(es) of water
lb = Pound(s)
lb/hr = Pound(s) per hour
mg/m^3 = Milligram(s) per cubic meter
PCE = Tetrachloroethylene
ppmv = Part(s) per million (vol./vol.)
SVE = Soil vapor extraction
TCE = Trichloroethene
1 = Due to issues with effluent air canister flow regulator, only influent sample collected and used to represent maximum potential mass discharged.

Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr
Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day
Mass emission limit for PCE is 1,000 lb/yr; TCE is 500 lb/year (6 NYCRR Part 212-2.2 Table 2)
Effluent data not available for 2/26/2025 due to error with air cansister.
Shaded cells indicate O&M events performed during a previous reporting period.

Figures

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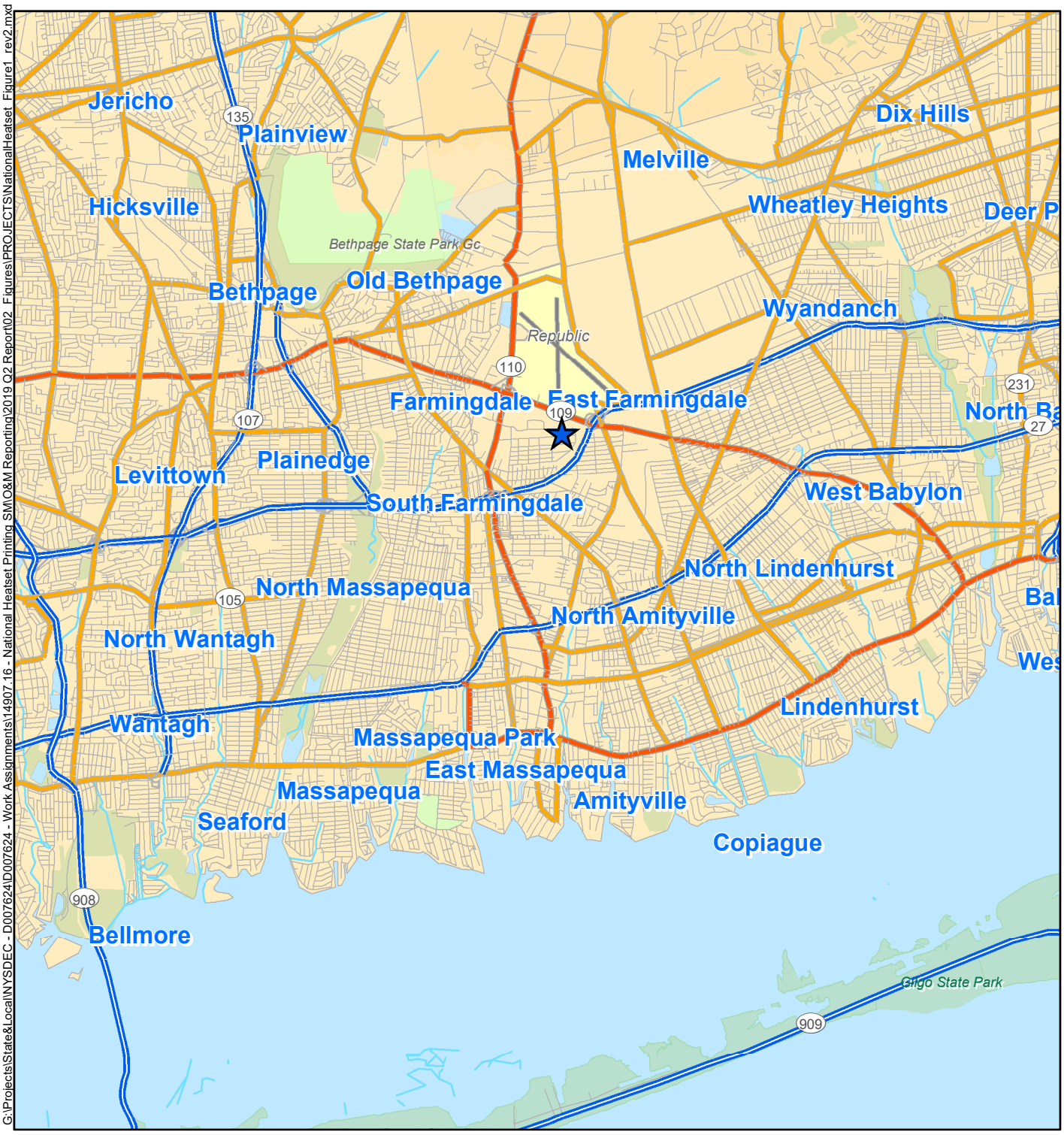
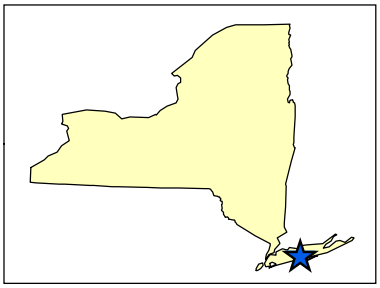




0 0.5 1 2
Miles

1 inch = 1.5 miles

N

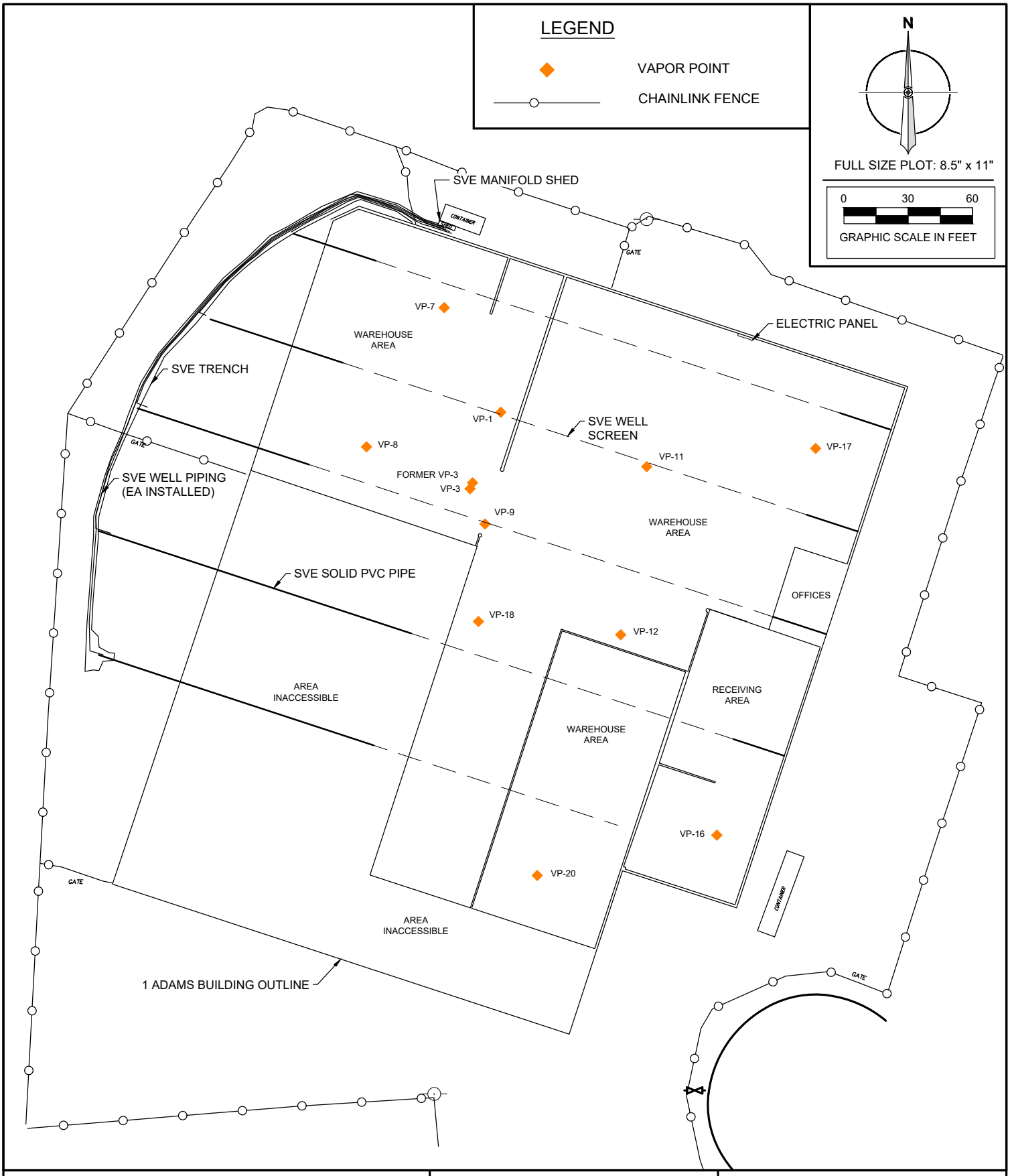
Legend

★ Site Location

Figure 1
SITE LOCATION MAP
NATIONAL HEATSET SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY

Map Date: 1/27/2020
Source: ESRI, 2011

NEW YORK STATE | Department of Environmental Conservation



EA Engineering and Geology, P.C.

269 W Jefferson Street
Syracuse, New York 13202
(315) 431-4610

www.eaest.com

PROJECT NAME
NATIONAL HEATSET SITE (152140)

PROJECT ADDRESS
BABYLON, SUFFOLK COUNTY, NEW YORK

DRAWING TITLE
ONSITE TREATMENT SYSTEM LOCATION
SVE SYSTEM

FIGURE
2

DRAWING INFORMATION	DRAWN BY: KK	DESIGNED BY: MM	CHECKED BY: MM	PROJECT MANAGER: MM	DATE: 12 JUNE 2023	PROJECT NO: 1602518

FILE PATH: \\SYRACUSEFP\SYRACUSE\PROJECTS\STATE&LOCAL\NYSDEC - D009806\WORK ASSIGNMENTS\1602518_NATIONAL HEATSET PRINTING CO._SM\08_CAD\NATIONALHEATSET_FIGURE2_ONSITE SVE SYSTEM.DWG [FIGURE 2] KATZER, KATHRYN 6/12/2023 1:15 PM

Attachment A

System Data Sheets

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National Heatset Printing Site
Farmingdale, NY

Soil Vapor Extraction System
Operation and Monitoring Form

Personnel: H. Bedell, M. Miller, D. Conan
Arrival Time: 13:00
Departure Time: 17:30
Date: 2/26/25
Run Timer Reading: 79723.98
Last Run Timer Reading: 78040.25
Weather: 55 F, Sunny, 8 mph SW
Time/Date of Last Reading 12/18/24 @ 09:10

System Status (On/Off/Alarms)

Arrival: System on
Departure: System on
Knockout Tank Drained? No # Gallons 0
Dilution Valve: 0 % Open

System Monitoring Data

(before valving down leg #3/after changes)

Well Legs	Valve Position	Vacuum (in H2O)	Flow		PID (ppm)
	Open or Closed	From Fluke	FPM from Velocicalc**	CFM from Velocicalc based on 2" pipe size	
1	Open	--/-12.41	--/350	12	0.5
2	Open	--/15.26	--/4500	98	1.1
3	Open	-11.77/-9	6000/4700	102	0.5
4	Open	-10.12/-17.09	200/220	4	0.4
5	Open	-12.92/-15.05	1300/1700	37	0.4
			Total flow =	253	

Vacuum on well legs typically ranges from -4 to -12 in H2O
**FPM values will bounce around choose an average and round up or down as appropriate

System Component	Temp. (°F)	Pressure (+)/ Vacuum (-) (in H2O)	Flow (CFM)		PID (ppm)
		Gauges	In H2O (pitot tube)	CFM from Dwyer App	
Blower Inlet (Vacuum)	65 (60-70 °F)	-45 (-30 to-70 in H2O)			0.5
Blower Outlet (Pressure)	165	48 before tanks	2.64	310	1.4

** Mark blower vacuum and flowrate on curve.

Vapor Samples

Influent **Air Sample** Start Time 1302 End Time 1640
Initial (in. Hg) -28 Final (in. Hg) -4

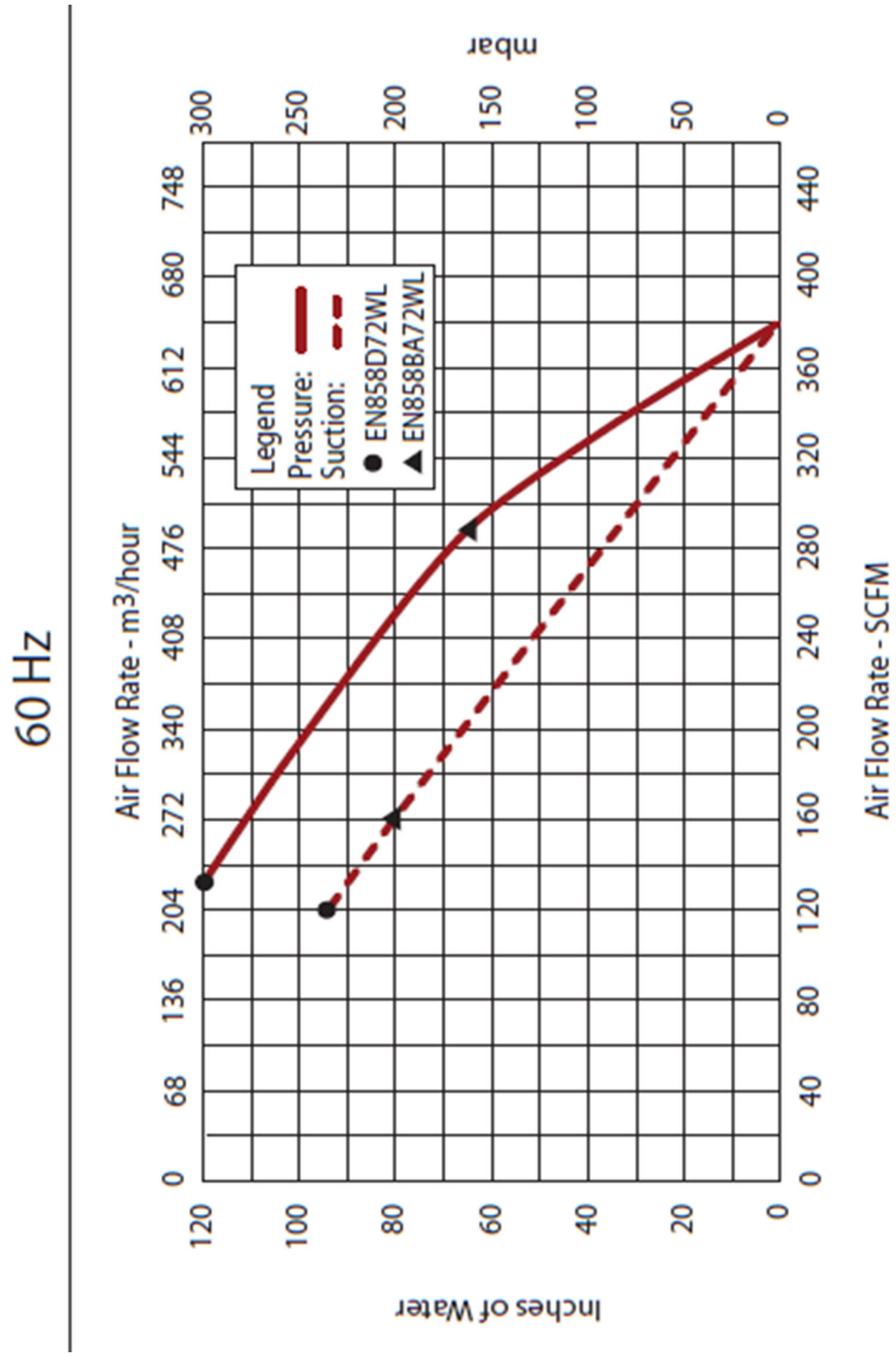
Effluent **Air Sample** Start Time 1302 End Time 1520
Initial (in. Hg) -4 Final (in. Hg) -1

Vapor Point Monitoring

ID	PID (ppm)	Vacuum (in. H2O)	Notes	ID	PID (ppb)	Vacuum (in. H2O)	Notes
VP-1	0.5	-0.604		VP-13	0.4	-0.141	Used plug with barb
VP-3	0.5	-0.079	Used plug with barb	VP-16	0.4	-0.056	
VP-7	0.5	-0.195		VP-17	0.4	-0.135	
VP-8	0.5	-0.660		VP-18	0.5	-0.405	
VP-10	0.5	-0.656	Used plug with barb	VP-19	0.5	-0.690	Used plug with barb
VP-11	0.5	-0.530	Used plug with barb	VP-20	0.4	-0.17	Tubing intact
VP-12	0.4	-0.058					

Comments

Contact #s
Site Access 516-343-0774 *give at least 24 hours notice
D&D 631-991-3001 electrician


60 Hz
Air Flow Rate - m3/hour
0
68
136
204
272
340
408
476
544
612
680
748
Air Flow Rate - SCFM
0
40
80
120
160
200
240
280
320
360
400
440
Inches of Water
120
100
80
60
40
20
0
mbar
300
250
200
150
100
50
0
Legend
Pressure:
Suction:
EN858D72WL
EN858BA72WL

Attachment B

Laboratory Analytical Data – System Vapor Samples

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ALS Environmental
2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T +1 805 526 7161

right solutions.
right partner.

LABORATORY REPORT

March 14, 2025

Megan Miller
EA Engineering and Geology, P.C.
6731 Collamer Road, Suite 2
East Syracuse, NY 13057

RE: National Heatset / NYSDEC: 152140 EA: 1602518

Dear Megan:

Enclosed are the results of the sample submitted to our laboratory on February 28, 2025. For your reference, this analysis has been assigned our service request number P2500745.

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

By Sue Anderson at 3:17 pm, Mar 14, 2025

Sue Anderson
Project Manager

ALS Environmental
2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T +1 805 526 7161

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right partner.

Client: EA Engineering and Geology, P.C.
Project: National Heatset / NYSDEC: 152140 EA: 1602518

Service Request No: P2500745
New York Lab ID: 11221

CASE NARRATIVE

The sample was received intact under chain of custody on February 28, 2025 and was 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 sample at the time of sample receipt.

Volatile Organic Compound Analysis

The sample was 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. 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 spike recoveries of cis-1,3-Dichloropropene in the Laboratory Control Sample (LCS) and Trichlorotrifluoroethane (CFC 113) and Carbon Disulfide in the Duplicate Laboratory Control Sample (DLCS) analyzed on March 13, 2025 were outside the laboratory generated control criteria. The recovery error equates to a potential low bias for cis-1,3-Dichloropropene and high bias for Trichlorotrifluoroethane (CFC 113) and Carbon Disulfide. However, the spike recoveries of the analytes in question were within the method criteria; therefore, the data quality has not been significantly affected. The data has been flagged accordingly. No corrective action was required.

The container was 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.

ALS Environmental
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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/lelap/accredited-laboratories	203013
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtm	CA012627
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
Oklahoma DEQ (NELAP)	labaccreditation.deq.ok.gov/labaccreditation/	2207
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068
Pennsylvania DEP	hhttp://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration only)
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
Utah DOH (NELAP)	https://uphl.utah.gov/certifications/environmental-laboratory-certification/	CA01627
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: EA Engineering and Geology, P.C. Service Request: P2500745

Project ID: National Heatset / NYSDEC: 152140 EA: 1602518

Date Received: 2/28/2025

Time Received: 09:40

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	TO-15 - VOC Cans 62
152140-INFLUENT-20250226	P2500745-001	Air	2/26/2025	16:40	SC02236	-1.92	3.74	X

ALS Environmental

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

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

P2500745

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) (0 Day-Standard)

ALS Project No.

ALS Contact:

Company Name & Address (Reporting Information)	EA Engineering 333 W. Washington St. Syracuse, NY 13202
Project Name	National Heatset
Project Number	NYSDEC: 152140 EA: 1602518
Project Manager	Megan Miller
P.O. # / Billing Information	
Phone	(716) 680-2618
Fax	
Email Address for Result Reporting	mmiller@eaest.com
Sampler (Print & Sign)	Hannah Bedell

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15		Comments e.g. Actual Preservative or specific instructions
152140-INFLUENT-20250226		2/26/25	1302 Start 1640 End	SC02236	OA00242	-28	-4	6L	X		
152140-EFFLUENT-20250226		2/26/25	1302 Start 1520 End	SC01550	OA00354	-4	-1	6L	X		Recieved w/ -4"Hg Vacuum. Contact Megan Miller (PM)

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) X
Tier II (Results + QC Summaries) ____ Tier IV (Data Validation Package) 10% Surcharge ____

EDD required (Yes) / No
Type: NYSDEC EQuIS Units: _____

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	2/27/25	1400	FEDEX		
Relinquished by: (Signature) FEDEX	Date:	Time:	Received by: (Signature) [signature]	Date: 2-28-25	Time: 0940

Cooler / Blank Temperature ____ °C

Signature denotes acceptance of ALS Group USA, Corp. Terms and Conditions - Detailed Terms & Conditions can be reviewed at the link below:
https://www.alsglobal.com/ALSGroupUSACorpTC

ALS Environmental
Sample Acceptance Check Form

Client: EA Engineering and Geology, P.C. Work order: P2500745

Project: National Heatset / NYSDE C: 152140 EA: 1602518

Sample(s) received on: 2/28/2025 Date opened: 2/28/2025 by: ANTHONY.VASQUEZ

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 if necessary 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?	☐	☐	☒
12	Lab Notification: Analyst and PM were alerted of Short HT or RUSH samples?	☐	☐	☒
13	Client Notification: Client has been notified regarding HT exceedances and/or other CoC discrepancies?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2500745-001.01	6.0 L Source Can					
P2500745-002.01	6.0 L Source Can					

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

Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **EA Engineering and Geology, P.C.**

Client Sample ID: **152140-INFLUENT-20250226**

Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**

ALS Project ID: P2500745

ALS Sample ID: P2500745-001

Test Code: EPA TO-15

Instrument ID: Entech 7200CTS/Agilent 7890B/5977B/MS26

Analyst: Topacio Zavala

Sample Type: 6.0 L Summa Canister

Test Notes:

Container ID: SC02236

Date Collected: 2/26/25

Date Received: 2/28/25

Date Analyzed: 3/14/25

Volume(s) Analyzed: 0.981 Liter(s)

0.10 Liter(s)

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.77	ND	0.45	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.1**	0.74	**0.42**	0.15	
74-87-3	Chloromethane	ND	0.78	ND	0.38	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.79	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.78	ND	0.30	
106-99-0	1,3-Butadiene	ND	0.78	ND	0.35	
74-83-9	Bromomethane	ND	0.75	ND	0.19	
75-00-3	Chloroethane	ND	0.81	ND	0.31	
67-64-1	Acetone	**12**	7.5	**5.0**	3.2	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.5**	0.74	**0.27**	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	**24**	1.5	**10**	0.62	
75-35-4	1,1-Dichloroethene	ND	0.67	ND	0.17	
75-09-2	Methylene Chloride	ND	0.67	ND	0.19	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.68	ND	0.088	
75-15-0	Carbon Disulfide	**1.9**	1.5	**0.60**	0.49	
156-60-5	trans-1,2-Dichloroethene	ND	0.77	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.76	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.78	ND	0.22	
108-05-4	Vinyl Acetate	ND	7.8	ND	2.2	
78-93-3	2-Butanone (MEK)	**1.8**	1.5	**0.61**	0.51	
156-59-2	cis-1,2-Dichloroethene	**5.3**	0.76	**1.3**	0.19	

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

Client: **EA Engineering and Geology, P.C.**
Client Sample ID: **152140-INFLUENT-20250226** ALS Project ID: P2500745
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518** ALS Sample ID: P2500745-001

Test Code: EPA TO-15 Date Collected: 2/26/25
Instrument ID: Entech 7200CTS/Agilent 7890B/5977B/MS26 Date Received: 2/28/25
Analyst: Topacio Zavala Date Analyzed: 3/14/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.981 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: SC02236

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	**18**	2.9	**5.0**	0.79	
110-54-3	n-Hexane	ND	0.76	ND	0.22	
67-66-3	Chloroform	**0.80**	0.78	**0.16**	0.16	
109-99-9	Tetrahydrofuran (THF)	ND	1.4	ND	0.47	
107-06-2	1,2-Dichloroethane	ND	0.74	ND	0.18	
71-55-6	1,1,1-Trichloroethane	**2.0**	0.76	**0.37**	0.14	
71-43-2	Benzene	**1.5**	0.75	**0.47**	0.23	
56-23-5	Carbon Tetrachloride	ND	0.75	ND	0.12	
110-82-7	Cyclohexane	ND	1.5	ND	0.44	
78-87-5	1,2-Dichloropropane	ND	0.79	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.79	ND	0.12	
79-01-6	Trichloroethene	**25**	0.77	**4.7**	0.14	
123-91-1	1,4-Dioxane	ND	0.78	ND	0.22	
142-82-5	n-Heptane	ND	0.76	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.38	
10061-02-6	trans-1,3-Dichloropropene	ND	0.73	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.81	ND	0.15	
108-88-3	Toluene	**2.2**	0.80	**0.58**	0.21	
591-78-6	2-Hexanone	ND	1.5	ND	0.37	

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

Client: **EA Engineering and Geology, P.C.**
Client Sample ID: **152140-INFLUENT-20250226** ALS Project ID: P2500745
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518** ALS Sample ID: P2500745-001

Test Code: EPA TO-15 Date Collected: 2/26/25
Instrument ID: Entech 7200CTS/Agilent 7890B/5977B/MS26 Date Received: 2/28/25
Analyst: Topacio Zavala Date Analyzed: 3/14/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.981 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: SC02236

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.76	ND	0.089	
106-93-4	1,2-Dibromoethane	ND	0.77	ND	0.10	
127-18-4	Tetrachloroethene	**290**	7.7	**42**	1.1	**D**
108-90-7	Chlorobenzene	ND	0.79	ND	0.17	
100-41-4	Ethylbenzene	ND	0.80	ND	0.18	
179601-23-1	m,p-Xylenes	ND	1.6	ND	0.36	
75-25-2	Bromoform	ND	0.80	ND	0.077	
100-42-5	Styrene	ND	0.78	ND	0.18	
95-47-6	o-Xylene	ND	0.79	ND	0.18	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.79	ND	0.12	
98-82-8	Cumene	ND	0.77	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.76	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.79	ND	0.16	
95-63-6	1,2,4-Trimethylbenzene	ND	0.77	ND	0.16	
100-44-7	Benzyl Chloride	ND	3.2	ND	0.61	
541-73-1	1,3-Dichlorobenzene	ND	0.78	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.77	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.76	ND	0.13	
120-82-1	1,2,4-Trichlorobenzene	ND	1.6	ND	0.21	
91-20-3	Naphthalene	ND	0.80	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.77	ND	0.072	

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

Client: **EA Engineering and Geology, P.C.**

Client Sample ID: **Method Blank**
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**

ALS Project ID: P2500745
ALS Sample ID: P250313-MB

Test Code:
Instrument ID: EPA TO-15
Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26
Sample Type: Topacio Zavala
Test Notes: 6.0 L Summa Canister

Date Collected: NA
Date Received: NA
Date Analyzed: 3/13/25
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.51	ND	0.10	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.54	ND	0.077	
75-01-4	Vinyl Chloride	ND	0.53	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.51	ND	0.13	
75-00-3	Chloroethane	ND	0.55	ND	0.21	
67-64-1	Acetone	ND	5.1	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.51	ND	0.090	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.42	
75-35-4	1,1-Dichloroethene	ND	0.46	ND	0.11	
75-09-2	Methylene Chloride	ND	0.46	ND	0.13	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.46	ND	0.060	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.33	
156-60-5	trans-1,2-Dichloroethene	ND	0.53	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.52	ND	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	0.53	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.3	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.35	
156-59-2	cis-1,2-Dichloroethene	ND	0.52	ND	0.13	

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.

Client: **EA Engineering and Geology, P.C.**

Client Sample ID: **Method Blank**

Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**

ALS Project ID: P2500745

ALS Sample ID: P250313-MB

Test Code:

Instrument ID: EPA TO-15

Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26

Sample Type: Topacio Zavala

Test Notes: 6.0 L Summa Canister

Date Collected: NA

Date Received: NA

Date Analyzed: 3/13/25

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	ND	2.0	ND	0.54	
110-54-3	n-Hexane	ND	0.52	ND	0.15	
67-66-3	Chloroform	ND	0.53	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.95	ND	0.32	
107-06-2	1,2-Dichloroethane	ND	0.51	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.52	ND	0.094	
71-43-2	Benzene	ND	0.51	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.51	ND	0.081	
110-82-7	Cyclohexane	ND	1.0	ND	0.30	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.080	
79-01-6	Trichloroethene	ND	0.53	ND	0.098	
123-91-1	1,4-Dioxane	ND	0.53	ND	0.15	
142-82-5	n-Heptane	ND	0.52	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.53	ND	0.12	
108-10-1	4-Methyl-2-pentanone	ND	1.1	ND	0.26	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.55	ND	0.10	
108-88-3	Toluene	ND	0.55	ND	0.14	
591-78-6	2-Hexanone	ND	1.0	ND	0.25	

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.

Client: **EA Engineering and Geology, P.C.**

Client Sample ID: **Method Blank**

Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**

ALS Project ID: P2500745

ALS Sample ID: P250313-MB

Test Code:

Instrument ID: EPA TO-15

Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26

Sample Type: Topacio Zavala

Test Notes: 6.0 L Summa Canister

Date Collected: NA

Date Received: NA

Date Analyzed: 3/13/25

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.52	ND	0.060	
106-93-4	1,2-Dibromoethane	ND	0.53	ND	0.068	
127-18-4	Tetrachloroethene	ND	0.54	ND	0.079	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.55	ND	0.13	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.55	ND	0.053	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.53	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.52	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.54	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	ND	0.11	
100-44-7	Benzyl Chloride	ND	2.2	ND	0.42	
541-73-1	1,3-Dichlorobenzene	ND	0.53	ND	0.088	
106-46-7	1,4-Dichlorobenzene	ND	0.53	ND	0.087	
95-50-1	1,2-Dichlorobenzene	ND	0.52	ND	0.087	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	ND	0.15	
91-20-3	Naphthalene	ND	0.55	ND	0.10	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.049	

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

SURROGATE SPIKE RECOVERY RESULTS

Client: **EA Engineering and Geology, P.C.**
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**
ALS Project ID: P2500745

Test Code:
Instrument ID: EPA TO-15
Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26
Sample Type: Topacio Zavala
Test Notes: 6.0 L Summa Canister(s)

Date(s) Collected: 2/26/25
Date(s) Received: 2/28/25
Date(s) Analyzed: 3/13 - 3/14/25

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P250313-MB	**88**	**115**	**109**	70-130	
Lab Control Sample	P250313-LCS	**87**	**116**	**120**	70-130	
Duplicate Lab Control Sample	P250313-DLCS	**88**	**114**	**118**	70-130	
152140-INFLUENT-20250226	P2500745-001	**89**	**113**	**109**	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

Client: **EA Engineering and Geology, P.C.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500745
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518** ALS Sample ID: P250313-DLCS
Test Code: Date Collected: NA
Instrument ID: EPA TO-15 Date Received: NA
Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26 Date Analyzed: 3/13/25
Sample Type: Topacio Zavala Volume(s) Analyzed: 0.125 Liter(s)
Test Notes: 6.0 L Summa Canister

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
115-07-1	Propene	42.4	34.6	35.4	**82**	**83**	50-133	1	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	41.2	42.5	42.7	**103**	**104**	66-122	1	25	
74-87-3	Chloromethane	41.6	41.5	41.8	**100**	**100**	56-131	0	25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	41.6	48.6	49.8	**117**	**120**	63-120	3	25	
75-01-4	Vinyl Chloride	42.0	44.9	45.9	**107**	**109**	57-129	2	25	
106-99-0	1,3-Butadiene	42.4	43.0	42.6	**101**	**100**	62-132	1	25	
74-83-9	Bromomethane	42.0	45.8	46.2	**109**	**110**	72-120	0.9	25	
75-00-3	Chloroethane	42.4	44.4	44.7	**105**	**105**	67-123	0	25	
67-64-1	Acetone	211	198	200	**94**	**95**	61-120	1	25	
75-69-4	Trichlorofluoromethane (CFC 11)	41.6	42.9	42.7	**103**	**103**	65-122	0	25	
67-63-0	2-Propanol (Isopropyl Alcohol)	83.2	76.7	77.0	**92**	**93**	59-132	1	25	
75-35-4	1,1-Dichloroethene	41.6	43.5	44.9	**105**	**108**	75-120	3	25	
75-09-2	Methylene Chloride	40.8	38.3	42.7	**94**	**105**	71-123	11	25	
76-13-1	Trichlorotrifluoroethane (CFC 113)	42.0	48.9	53.9	**116**	**128**	65-121	10	25	**L**
75-15-0	Carbon Disulfide	86.0	94.9	106	**110**	**123**	69-115	11	25	**L**
156-60-5	trans-1,2-Dichloroethene	43.6	43.3	42.6	**99**	**98**	67-123	1	25	
75-34-3	1,1-Dichloroethane	43.6	43.4	43.7	**100**	**100**	66-120	0	25	
1634-04-4	Methyl tert-Butyl Ether	43.2	36.2	36.0	**84**	**83**	65-124	1	25	
108-05-4	Vinyl Acetate	218	176	178	**81**	**82**	76-147	1	25	
78-93-3	2-Butanone (MEK)	82.4	67.9	67.0	**82**	**81**	70-125	1	25	
156-59-2	cis-1,2-Dichloroethene	42.8	38.9	39.9	**91**	**93**	64-120	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.
L = Laboratory control sample recovery outside the specified limits, results may be biased high.

Client: **EA Engineering and Geology, P.C.**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518**
Test Code:
Instrument ID: EPA TO-15
Analyst: Entech 7200CTS/Agilent 7890B/5977B/MS26
Sample Type: Topacio Zavala
Test Notes: 6.0 L Summa Canister

ALS Project ID: P2500745
ALS Sample ID: P250313-DLCS
Date Collected: NA
Date Received: NA
Date Analyzed: 3/13/25
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
141-78-6	Ethyl Acetate	79.6	76.0	76.3	**95**	**96**	56-120	1	25	
110-54-3	n-Hexane	42.4	38.9	39.9	**92**	**94**	60-125	2	25	
67-66-3	Chloroform	43.2	43.5	43.9	**101**	**102**	64-121	1	25	
109-99-9	Tetrahydrofuran (THF)	80.8	74.6	76.3	**92**	**94**	67-117	2	25	
107-06-2	1,2-Dichloroethane	40.8	36.5	36.3	**89**	**89**	64-138	0	25	
71-55-6	1,1,1-Trichloroethane	42.0	41.3	41.7	**98**	**99**	67-125	1	25	
71-43-2	Benzene	41.2	42.6	43.2	**103**	**105**	73-128	2	25	
56-23-5	Carbon Tetrachloride	42.0	43.1	43.2	**103**	**103**	71-134	0	25	
110-82-7	Cyclohexane	86.0	85.9	87.6	**100**	**102**	71-118	2	25	
78-87-5	1,2-Dichloropropane	42.8	40.3	41.5	**94**	**97**	68-121	3	25	
75-27-4	Bromodichloromethane	43.6	44.9	45.4	**103**	**104**	70-125	1	25	
79-01-6	Trichloroethene	42.8	44.1	44.9	**103**	**105**	68-124	2	25	
123-91-1	1,4-Dioxane	42.8	41.5	41.8	**97**	**98**	76-127	1	25	
142-82-5	n-Heptane	42.8	42.6	43.1	**100**	**101**	72-121	1	25	
10061-01-5	cis-1,3-Dichloropropene	42.4	36.3	37.3	**86**	**88**	87-137	2	25	**L**
108-10-1	4-Methyl-2-pentanone	85.2	74.4	75.3	**87**	**88**	67-137	1	25	
10061-02-6	trans-1,3-Dichloropropene	39.2	32.5	33.7	**83**	**86**	73-127	4	25	
79-00-5	1,1,2-Trichloroethane	43.2	46.2	46.6	**107**	**108**	71-119	0.9	25	
108-88-3	Toluene	43.2	52.4	52.0	**121**	**120**	64-121	0.8	25	
591-78-6	2-Hexanone	84.8	77.7	77.2	**92**	**91**	70-136	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.
L = Laboratory control sample recovery outside the specified limits, results may be biased low.

Client: **EA Engineering and Geology, P.C.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500745
Client Project ID: **National Heatset / NYSDEC: 152140 EA: 1602518** ALS Sample ID: P250313-DLCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Entech 7200CTS/Agilent 7890B/5977B/MS26 Date Received: NA
Analyst: Topacio Zavala Date Analyzed: 3/13/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
124-48-1	Dibromochloromethane	43.2	51.6	51.5	**119**	**119**	67-128	0	25	
106-93-4	1,2-Dibromoethane	40.8	50.1	50.0	**123**	**123**	69-129	0	25	
127-18-4	Tetrachloroethene	42.8	54.6	53.4	**128**	**125**	55-132	2	25	
108-90-7	Chlorobenzene	43.2	51.6	51.6	**119**	**119**	63-124	0	25	
100-41-4	Ethylbenzene	43.6	48.4	48.5	**111**	**111**	64-119	0	25	
179601-23-1	m,p-Xylenes	86.4	99.1	98.1	**115**	**114**	64-121	0.9	25	
75-25-2	Bromoform	43.6	55.6	55.7	**128**	**128**	63-132	0	25	
100-42-5	Styrene	42.8	44.1	44.9	**103**	**105**	71-125	2	25	
95-47-6	o-Xylene	43.2	50.0	49.7	**116**	**115**	66-122	0.9	25	
79-34-5	1,1,2,2-Tetrachloroethane	43.2	52.9	52.5	**122**	**122**	71-128	0	25	
98-82-8	Cumene	42.8	49.9	50.4	**117**	**118**	66-126	0.9	25	
622-96-8	4-Ethyltoluene	43.6	49.2	49.3	**113**	**113**	67-128	0	25	
108-67-8	1,3,5-Trimethylbenzene	43.2	48.7	48.5	**113**	**112**	66-125	0.9	25	
95-63-6	1,2,4-Trimethylbenzene	42.4	47.1	47.3	**111**	**112**	67-130	0.9	25	
100-44-7	Benzyl Chloride	85.2	81.6	79.6	**96**	**93**	58-151	3	25	
541-73-1	1,3-Dichlorobenzene	42.4	50.2	49.6	**118**	**117**	57-135	0.9	25	
106-46-7	1,4-Dichlorobenzene	42.4	47.2	46.4	**111**	**109**	56-129	2	25	
95-50-1	1,2-Dichlorobenzene	42.4	49.4	48.8	**117**	**115**	57-138	2	25	
120-82-1	1,2,4-Trichlorobenzene	87.2	76.8	76.9	**88**	**88**	50-137	0	25	
91-20-3	Naphthalene	43.6	31.9	32.4	**73**	**74**	50-157	1	25	
87-68-3	Hexachlorobutadiene	42.4	47.4	47.0	**112**	**111**	50-133	0.9	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.

Response Factor Report MS26

1st TZ 02/28/25
2nd 02/28/25

Method Path : I:\MS26\Methods\
Method File : R26022725.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Feb 28 08:42:55 2025
Response Via : Initial Calibration

Calibration Files
0.1 =02272504.D 0.2 =02272505.D 0.5 =02272506.D 1.0 =02272507.D 5.0 =02272508.D 25 =02272509.D 50 =02272510.D
100 =02272512.D

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	----------ISTD----------									
2)	T	Propene	1.836	1.477	1.460	1.390	1.306	1.340	1.340	1.246	1.424	12.85
3)	T	Dichlorodifluo...	1.964	2.041	2.006	2.094	1.964	2.017	2.001	1.818	1.988	4.05
4)	T	Chloromethane	1.330	1.185	1.199	1.205	1.122	1.153	1.157	1.093	1.180	6.05
5)	T	1,2-Dichloro-1...	1.020	0.982	0.972	1.028	0.951	0.992	0.990	0.915	0.981	3.70
6)	T	Vinyl Chloride	1.254	1.306	1.243	1.270	1.185	1.233	1.232	1.152	1.234	3.88
7)	T	1,3-Butadiene	1.151	1.118	1.044	1.073	1.022	1.043	1.042	0.972	1.058	5.27
8)	T	Bromomethane	0.999	0.898	0.855	0.857	0.796	0.824	0.819	0.775	0.853	8.26
9)	T	Chloroethane	0.718	0.648	0.682	0.673	0.620	0.642	0.646	0.612	0.655	5.31
10)	T	Ethanol	0.915	0.821	0.694	0.672	0.580	0.591	0.581	0.516	0.671	20.25
11)	T	Acetonitrile	1.933	1.650	1.493	1.541	1.349	1.417	1.441	1.365	1.524	12.61
12)	T	Acrolein	0.932	0.765	0.697	0.661	0.604	0.627	0.633	0.587	0.688	16.50
13)	T	Acetone	2.261	2.236	2.095	2.123	1.954	1.907	1.752	1.374	1.963	14.93
14)	T	Trichlorofluor...	1.982	1.955	1.999	2.036	1.884	1.958	1.956	1.817	1.949	3.52
15)	T	2-Propanol (Is...			2.824	2.610	2.247	2.224	2.179	1.941	2.337	13.72
16)	T	Acrylonitrile	1.458	1.306	1.235	1.183	1.082	1.133	1.138	1.064	1.200	10.91
17)	T	1,1-Dichloroet...	1.421	1.457	1.477	1.514	1.388	1.420	1.410	1.311	1.425	4.30
18)	T	2-Methyl-2-Pro...	3.139	3.092	2.523	2.529	2.418	2.453	2.375	2.045	2.572	14.33
19)	T	Methylene Chlo...	1.295	1.223	1.162	1.141	1.052	1.073	1.059	0.974	1.122	9.24
20)	T	3-Chloro-1-pro...	1.403	1.271	1.195	1.178	1.126	1.174	1.171	1.089	1.201	8.10
21)	T	Trichlorotrifl...	0.950	1.105	1.026	1.000	0.957	0.974	0.943	0.821	0.972	8.30
22)	T	Carbon Disulfide	3.162	3.533	3.198	3.266	3.041	3.063	2.883	2.354	3.063	11.22
23)	T	trans-1,2-Dich...	1.348	1.400	1.415	1.427	1.364	1.416	1.184	1.095	1.331	9.28
24)	T	1,1-Dichloroet...	1.666	1.721	1.662	1.690	1.604	1.666	1.382	1.286	1.585	10.10
25)	T	Methyl tert-Bu...	3.311	3.134	3.210	3.238	3.098	3.181	2.716	2.375	3.033	10.58
26)	T	Vinyl Acetate	2.723	2.698	2.640	2.635	2.316	2.314	2.103	1.373	2.350	19.33
27)	T	2-Butanone (MEK)	2.910	2.643	2.414	2.435	2.278	2.293	2.278	2.024	2.410	11.12
28)	T	cis-1,2-Dichlo...	1.336	1.342	1.298	1.360	1.264	1.320	1.325	1.260	1.313	2.76
29)	T	Diisopropyl Ether	3.119	3.085	3.013	3.059	2.875	2.855	2.699	2.212	2.865	10.44
30)	T	Ethyl Acetate	0.346	0.345	0.356	0.357	0.344	0.355	0.353	0.312	0.346	4.23
31)	T	n-Hexane	1.697	1.620	1.606	1.625	1.551	1.574	1.537	1.375	1.573	6.01
32)	T	Chloroform	1.690	1.845	1.833	1.822	1.716	1.747	1.735	1.612	1.750	4.59
33)	S	1,2-Dichloroet...	1.451	1.440	1.448	1.444	1.415	1.420	1.429	1.403	1.431	1.20
34)	T	Tetrahydrofura...	0.626	0.672	0.609	0.619	0.603	0.620	0.631	0.603	0.623	3.60
35)	T	Ethyl tert-But...	1.367	1.350	1.303	1.353	1.282	1.317	1.309	1.199	1.310	4.09
36)	T	1,2-Dichloroet...	1.435	1.438	1.442	1.497	1.397	1.434	1.448	1.374	1.433	2.54
37)	IR	1,4-Difluorobenzen...	----------ISTD----------									
38)	T	1,1,1-Trichlor...	0.397	0.430	0.415	0.421	0.416	0.427	0.426	0.415	0.418	2.50

1st TZ 02/28/25
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39)	T	Benzene	0.985	0.984	0.975	0.997	0.965	0.975	0.962	0.898	0.968	3.14
40)	T	Carbon Tetrach...	0.360	0.322	0.377	0.381	0.380	0.399	0.400	0.394	0.377	6.89
41)	T	Cyclohexane	0.377	0.385	0.395	0.409	0.385	0.392	0.383	0.353	0.385	4.19
42)	T	tert-Amyl Meth...	0.727	0.735	0.705	0.717	0.693	0.700	0.678	0.604	0.695	5.90
43)	T	1,2-Dichloropr...	0.266	0.248	0.237	0.234	0.223	0.225	0.228	0.221	0.235	6.54
44)	T	Bromodichlorom...	0.328	0.322	0.325	0.347	0.334	0.345	0.350	0.343	0.337	3.21
45)	T	Trichloroethene	0.320	0.322	0.303	0.309	0.299	0.308	0.307	0.295	0.308	3.01
46)	T	1,4-Dioxane	0.243	0.242	0.186	0.198	0.187	0.191	0.188	0.184	0.202	12.48
47)	T	2,2,4-Trimethy...	0.975	1.006	0.985	1.005	0.951	0.973	0.949	0.885	0.966	4.02
48)	T	Methyl Methacr...	0.108	0.106	0.107	0.114	0.113	0.117	0.119	0.114	0.112	4.26
49)	T	n-Heptane	0.261	0.248	0.261	0.259	0.255	0.262	0.262	0.251	0.257	2.11
50)	T	cis-1,3-Dichlo...	0.422	0.405	0.411	0.433	0.414	0.442	0.448	0.440	0.427	3.76
51)	T	4-Methyl-2-pen...	0.242	0.243	0.189	0.199	0.198	0.205	0.203	0.192	0.209	10.31
52)	T	trans-1,3-Dich...	0.346	0.360	0.357	0.365	0.361	0.371	0.383	0.383	0.366	3.48
53)	T	1,1,2-Trichlor...	0.232	0.241	0.246	0.245	0.241	0.248	0.250	0.243	0.243	2.27
54)	IR	Chlorobenzene-d5 (...	----------ISTD----------									
55)	S	Toluene-d8 (SS2)	6.668	6.554	6.693	6.592	6.671	6.646	6.589	6.564	6.622	0.81
56)	T	Toluene	6.383	6.179	6.276	6.259	6.023	6.144	5.900	5.419	6.073	5.01
57)	T	2-Hexanone	3.420	3.425	2.495	2.544	2.593	2.744	2.649	2.336	2.776	15.00
58)	T	Dibromochlorom...	1.866	1.897	1.866	1.894	1.852	1.960	1.948	1.890	1.897	2.05
59)	T	1,2-Dibromoethane	1.766	1.688	1.755	1.814	1.755	1.840	1.817	1.751	1.773	2.74
60)	T	n-Butyl Acetate	3.546	3.628	2.740	2.863	2.975	3.118	2.993	2.657	3.065	11.55
61)	T	n-Octane	1.275	1.264	1.245	1.240	1.188	1.214	1.189	1.127	1.218	4.00
62)	T	Tetrachloroethene	2.040	1.940	2.051	2.014	1.972	2.037	1.979	1.899	1.992	2.70
63)	T	Chlorobenzene	4.490	4.343	4.447	4.470	4.304	4.425	4.296	3.974	4.343	3.84
64)	T	Ethylbenzene	6.733	6.893	7.291	7.229	7.063	7.258	7.007	6.356	6.979	4.54
65)	T	m- & p-Xylenes	5.559	5.762	5.886	5.880	5.761	5.848	5.557	4.886	5.643	5.89
66)	T	Bromoform	1.456	1.430	1.516	1.524	1.524	1.631	1.615	1.475	1.521	4.68
67)	T	Styrene	4.267	4.404	4.241	4.408	4.498	4.747	4.631	4.391	4.448	3.87
68)	T	o-Xylene	5.526	5.627	5.687	5.844	5.678	5.761	5.581	5.120	5.603	3.91
69)	T	n-Nonane	2.681	2.449	2.558	2.404	2.465	2.544	2.486	2.338	2.491	4.21
70)	T	1,1,2,2-Tetrac...	2.514	2.446	2.540	2.533	2.543	2.630	2.568	2.378	2.519	3.04
71)	S	Bromofluoroben...	2.293	2.304	2.351	2.362	2.429	2.404	2.412	2.436	2.374	2.33
72)	T	Cumene	7.057	7.011	7.183	7.246	7.214	7.442	7.211	6.601	7.121	3.46
73)	T	alpha-Pinene	3.862	3.529	3.674	3.781	3.739	3.884	3.844	3.634	3.743	3.32
74)	T	n-Propylbenzene	8.010	7.943	8.210	8.255	8.431	8.703	8.404	7.633	8.199	4.06
75)	T	4-Ethyltoluene	6.879	6.878	6.913	7.045	7.130	7.476	7.270	6.687	7.035	3.58
76)	T	1,3,5-Trimethy...	5.987	6.042	6.077	6.063	6.008	6.333	6.134	5.705	6.044	2.88
77)	T	1,2,4-Trimethy...	6.082	6.119	6.302	6.232	6.294	6.613	6.385	5.792	6.228	3.87
78)	T	Benzyl Chloride	4.468	4.069	3.992	4.258	4.585	5.390	5.213	4.147	4.515	11.64
79)	T	1,3-Dichlorobe...	4.061	3.632	3.640	3.713	3.670	3.910	3.745	3.406	3.722	5.26
80)	T	1,4-Dichlorobe...	4.059	3.832	3.723	3.696	3.642	3.977	3.917	3.671	3.815	4.08
81)	T	sec-Butylbenzene	7.460	7.786	7.977	7.931	7.970	8.369	8.079	7.406	7.872	4.04
82)	T	4-Isopropyltol...	6.693	6.605	6.736	6.756	6.968	7.393	7.191	6.668	6.876	4.11
83)	T	1,2-Dichlorobe...	3.685	3.659	3.578	3.663	3.602	3.840	3.803	3.564	3.674	2.74
84)	T	d-Limonene	1.849	1.821	1.847	1.881	2.005	2.179	2.160	2.069	1.976	7.42
85)	T	1,2-Dibromo-3-...	1.302	1.250	1.169	1.240	1.267	1.443	1.460	1.424	1.319	8.24
86)	T	1,2,4-Trichlor...	2.734	2.473	2.242	2.344	2.503	2.960	3.009	2.914	2.647	11.19
87)	T	Naphthalene	8.429	7.582	6.023	6.500	6.923	8.482	8.738	8.541	7.652	13.77
88)	T	Hexachlorobuta...	1.731	1.735	1.786	1.756	1.712	1.848	1.882	1.873	1.790	3.81
89)	T	tert-Butylbenzene	6.000	5.930	6.019	6.137	6.054	6.297	6.094	5.597	6.016	3.35
90)	T	n-Butylbenzene	6.116	5.744	5.660	5.837	6.073	6.558	6.422	6.026	6.055	5.20

(#) = Out of Range

R26022725.M Fri Feb 28 08:59:00 2025 SIMI

1st 02/28/25

2nd 02/28/25

Evaluate Continuing Calibration Report

1st 03/13/25
2nd TZ 03/13/25

Data Path : I:\MS26\Data\2025_03\13\
Data File : 03132501.D
Acq On : 13 Mar 2025 12:07
Operator : TZ
Sample : CCV R26031325_5ng
Misc : S38-03032508/S38-02272505 (3/29)
ALS Vial : 211 Sample Multiplier: 1

Quant Time: Mar 13 12:47:08 2025
Quant Method : I:\MS26\Methods\R26022725.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Feb 28 08:42:55 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	87	0.00
2	T	Propene	1.424	1.113	21.8	74	0.00
3	T	Dichlorodifluoromethane (CF	1.988	1.959	1.5	87	0.00
4	T	Chloromethane	1.180	1.115	5.5	86	0.00
5	T	1,2-Dichloro-1,1,2,2-tetraf	0.981	1.048	-6.8	96	0.00
6	T	Vinyl Chloride	1.234	1.230	0.3	90	0.00
7	T	1,3-Butadiene	1.058	0.993	6.1	84	0.00
8	T	Bromomethane	0.853	0.880	-3.2	96	0.00
9	T	Chloroethane	0.655	0.664	-1.4	93	0.00
10	T	Ethanol	0.671	0.555	17.3	83	0.00
11	T	Acetonitrile	1.524	1.303	14.5	84	0.00
12	T	Acrolein	0.688	0.606	11.9	87	0.00
13	T	Acetone	1.963	1.760	10.3	78	0.00
14	T	Trichlorofluoromethane	1.949	1.924	1.3	89	0.00
15	T	2-Propanol (Isopropanol)	2.337	1.997	14.5	77	0.00
16	T	Acrylonitrile	1.200	1.114	7.2	89	0.00
17	T	1,1-Dichloroethene	1.425	1.377	3.4	86	0.00
18	T	2-Methyl-2-Propanol (tert-B	2.572	1.921	25.3	69	0.00
19	T	Methylene Chloride	1.122	1.001	10.8	83	0.00
20	T	3-Chloro-1-propene (Allyl C	1.201	0.958	20.2	74	0.00
21	T	Trichlorotrifluoroethane	0.972	1.143	-17.6	104	0.00
22	T	Carbon Disulfide	3.063	3.591	-17.2	103	0.00
23	T	trans-1,2-Dichloroethene	1.331	1.244	6.5	79	0.00
24	T	1,1-Dichloroethane	1.585	1.501	5.3	81	0.00
25	T	Methyl tert-Butyl Ether	3.033	2.360	22.2	66	0.00
26	T	Vinyl Acetate	2.350	1.853	21.1	70	0.00
27	T	2-Butanone (MEK)	2.410	1.847	23.4	71	0.00
28	T	cis-1,2-Dichloroethene	1.313	1.141	13.1	79	0.00
29	T	Diisopropyl Ether	2.865	2.414	15.7	73	0.00
30	T	Ethyl Acetate	0.346	0.320	7.5	81	0.00
31	T	n-Hexane	1.573	1.392	11.5	78	0.00
32	T	Chloroform	1.750	1.634	6.6	83	0.00
33	S	1,2-Dichloroethane-d4(SS1)	1.431	1.247	12.9	77	0.00
34	T	Tetrahydrofuran (THF)	0.623	0.539	13.5	78	0.00
35	T	Ethyl tert-Butyl Ether	1.310	1.088	16.9	74	0.00
36	T	1,2-Dichloroethane	1.433	1.234	13.9	77	0.00
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	84	0.00
38	T	1,1,1-Trichloroethane	0.418	0.391	6.5	79	0.00
39	T	Benzene	0.968	0.940	2.9	82	0.00
40	T	Carbon Tetrachloride	0.377	0.365	3.2	81	0.00
41	T	Cyclohexane	0.385	0.367	4.7	81	0.00
42	T	tert-Amyl Methyl Ether	0.695	0.516	25.8	63	0.00
43	T	1,2-Dichloropropane	0.235	0.213	9.4	81	0.00
44	T	Bromodichloromethane	0.337	0.320	5.0	81	0.00
45	T	Trichloroethene	0.308	0.308	0.0	87	0.00
46	T	1,4-Dioxane	0.202	0.174	13.9	79	0.00
47	T	2,2,4-Trimethylpentane (Iso	0.966	0.879	9.0	78	0.00
48	T	Methyl Methacrylate	0.112	0.099	11.6	74	0.00
49	T	n-Heptane	0.257	0.243	5.4	81	0.00
50	T	cis-1,3-Dichloropropene	0.427	0.355	16.9	73	0.00
51	T	4-Methyl-2-pentanone	0.209	0.168	19.6	72	0.00
52	T	trans-1,3-Dichloropropene	0.366	0.304	16.9	71	0.00
53	T	1,1,2-Trichloroethane	0.243	0.245	-0.8	86	0.00

1st 03/13/25
2nd TZ 03/13/25

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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Feb 28 08:42:55 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	72	0.00
55	S	Toluene-d8 (SS2)	6.622	7.699	-16.3	83	0.00
56	T	Toluene	6.073	6.992	-15.1	84	0.00
57	T	2-Hexanone	2.776	2.316	16.6	65	0.00
58	T	Dibromochloromethane	1.897	2.163	-14.0	84	0.00
59	T	1,2-Dibromoethane	1.773	2.053	-15.8	85	0.00
60	T	n-Butyl Acetate	3.065	2.382	22.3	58	0.00
61	T	n-Octane	1.218	1.251	-2.7	76	0.00
62	T	Tetrachloroethene	1.992	2.407	-20.8	88	0.00
63	T	Chlorobenzene	4.343	5.113	-17.7	86	0.00
64	T	Ethylbenzene	6.979	7.492	-7.4	77	0.00
65	T	m- & p-Xylenes	5.643	6.272	-11.1	79	0.00
66	T	Bromoform	1.521	1.806	-18.7	86	0.00
67	T	Styrene	4.448	4.637	-4.2	75	0.00
68	T	o-Xylene	5.603	6.297	-12.4	80	0.00
69	T	n-Nonane	2.491	2.272	8.8	67	0.00
70	T	1,1,2,2-Tetrachloroethane	2.519	2.961	-17.5	84	0.00
71	S	Bromofluorobenzene (SS3)	2.374	2.782	-17.2	83	0.00
72	T	Cumene	7.121	7.875	-10.6	79	0.00
73	T	alpha-Pinene	3.743	3.666	2.1	71	0.00
74	T	n-Propylbenzene	8.199	9.289	-13.3	80	0.00
75	T	4-Ethyltoluene	7.035	7.633	-8.5	77	0.00
76	T	1,3,5-Trimethylbenzene	6.044	6.628	-9.7	80	0.00
77	T	1,2,4-Trimethylbenzene	6.228	6.811	-9.4	78	0.00
78	T	Benzyl Chloride	4.515	4.222	6.5	67	0.00
79	T	1,3-Dichlorobenzene	3.722	4.443	-19.4	88	0.00
80	T	1,4-Dichlorobenzene	3.815	4.356	-14.2	86	0.00
81	T	sec-Butylbenzene	7.872	8.862	-12.6	80	0.00
82	T	4-Isopropyltoluene (p-Cymen	6.876	7.369	-7.2	76	0.00
83	T	1,2-Dichlorobenzene	3.674	4.323	-17.7	87	0.00
84	T	d-Limonene	1.976	1.907	3.5	69	0.00
85	T	1,2-Dibromo-3-Chloropropane	1.319	1.435	-8.8	82	0.00
86	T	1,2,4-Trichlorobenzene	2.647	2.578	2.6	74	0.00
87	T	Naphthalene	7.652	6.346	17.1	66	0.00
88	T	Hexachlorobutadiene	1.790	1.994	-11.4	84	0.00
89	T	tert-Butylbenzene	6.016	6.453	-7.3	77	0.00
90	T	n-Butylbenzene	6.055	6.438	-6.3	77	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0