RAMBOLL

ENVIRONMENT
& HEALTH

TECHNICAL MEMORANDUM

Title	**Nested Subslab Soil Vapor Technical Memorandum**
Project no.	**5851/71949**
Client	**Lockheed Martin Corporation**
Memo no.	**1**
Version	**2**
To	**Jill Fonte**
From	**Eric Alongi**
Copy to	**Robert Tyson – BS&K** **R. Stan Phillips – LMC** **Matthew Traister, PE – Ramboll**

Date August 19, 2020

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On behalf of Lockheed Martin Corporation (LMC), O'Brien & Gere Engineers, Inc., a Ramboll company (Ramboll) has prepared this *Nested Subslab Soil Vapor Technical Memorandum* (TM) for the former GE Farrell Road Site (Site).

This TM summarizes vapor intrusion (VI) related sampling activities outlined in the *Subsurface Investigation Work Plan in the Vicinity of Building #2* (work plan), prepared by AECOM Technical Services, Inc. (AECOM) and approved by the New York State Department of Environmental Conservation (NYSDEC) on June 12, 2019.

1 Site Background

The Site consists of 16.6 acres in an industrial zone setting located on Farrell Road and John Glenn Boulevard in the Town of Geddes, northeast of Routes 690 and 90 and south of the Seneca River. The site includes an industrial building (Building 2) that is approximately 310,500 square feet (sq. ft.) in size, a garage that is approximately 8,000 sq. ft. in size and Class I wetlands on the north side of the site (**Figure 1**). Further north of the site, the Class I wetland area continues north to the Seneca River. Currently, the site is classified as Class 4 on NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites (Site #734055). This TM pertains to VI activities within Building 2.

There are three primary historic source areas relevant to vapor intrusion potential at the Site, referred to as areas of concern (AOC), where interim remedial measures (IRMs) were implemented.[1] The following paragraphs identify the location (also shown on **Figure 1**) and description of each AOC:

- AOC 5, located along the west side of Building 2, was an area where nine underground storage tanks (USTs), which reportedly contained both chlorinated and non-chlorinated solvents, and a paint drippings dry well were removed.

[1] Note that there were other AOCs at the Site where some remedial work was completed, but they are not considered relevant to this investigation. AOC 3 was an area where TCE was used; however, no further action or remediation was required after its investigation (characterization and extent).

- AOC 7, located along the east side of Building 2, was an area of a former fuel oil UST and where drums containing Freon were rinsed.
- AOC 16, located adjacent to the maintenance garage, was an area of a former gasoline UST.

1.1 Vapor Intrusion Sampling Background

In response to a request by the New York State Department of Environmental Conservation (NYSDEC) in August 2006, LMC conducted sampling at Building 2 to assess the potential for vapor intrusion. LMC retained Ramboll to conduct the vapor intrusion sampling, which was performed in February 2007 for the 2006-2007 heating season. The results of the sampling were summarized in a TM in May 2007, in which further sampling for trichloroethene (TCE) and 1,1-dichloroethene (1,1-DCE) was recommended for two of the five sampling locations. Further sampling was conducted in December 2007 for the 2007-2008 heating season, the results of which were reported by Ramboll in a TM in February 2008. Additional sampling was recommended at two locations to confirm the results.

Additional sampling was conducted in December 2008 for the 2008-2009 heating season and results were summarized in a TM in March 2009. Based on the sample results, and in conformance with the New York State Department of Health's (NYSDOH) two soil vapor / indoor air matrices, no further action was necessary. However, Ramboll recommended that annual inspections be conducted to identify slab breaches and building modifications that could increase the potential for sub-slab vapors to intrude. NYSDEC approved the annual inspection approach in a December 9, 2009 letter from Javier Perez of NYSDEC to Myron Parkolap of LMC.

In response to a request by the current Site owner, Widewaters Farrell Road II Company, LLC (Widewaters), due to potential tenant occupancy within the building, additional sampling was conducted in September 2015 to provide updated soil vapor data for the site in accordance with a NYSDEC-approved work plan. The results of the sampling were summarized in a TM in December 2015, in which the installation of two sub-slab depressurization systems (SSDSs) and additional heating season sampling were recommended. The heating season sampling was conducted in February 2016 and results indicated that a third SSDS should be installed within the building. The three SSDSs were installed and commissioned in September 2016.

Post-mitigation indoor air sampling was conducted during the heating season (in January 2017) to evaluate the effectiveness of the SSDSs. The results suggested that additional mitigation may be warranted to reduce indoor air levels. LMC recommended sealing of slab breaches, which were identified in 2015 and 2016 and previously recommended to be sealed. Follow-on indoor air and sub-slab soil vapor sampling was also recommended.

In July 2017, a photoionization detector (PID) survey of possible slab breaches was conducted, followed by slab sealing of identified slab breaches and confirmatory sampling. The July sampling identified an indoor air source of some of the same compounds found in soil vapor. Following removal of the indoor air source, additional sampling was conducted in October 2017, which showed a reduction in indoor air levels of the primary vapor-related compounds to or below typical background levels. Sampling results from some of the new sub-slab soil vapor (SSSV) sampling locations selected for the October 2017 sampling event identified new areas of elevated sub-slab levels, and LMC consequently recommended additional mitigation in its November 2017 request to NYSDEC. NYSDEC agreed with the additional

mitigation (SSDS-25) and requested a written plan to address and provide for the long-term protection of building occupants[2].

In June 2018, additional SSSV screening (PID survey) and sampling was conducted to aid in finalizing the specific slab area to be mitigated by SSDS-25 in accordance with a pre-design investigation (PDI) work plan approved by NYSDEC on May 18, 2018. The results confirmed that the proposed area for SSDS-25 when combined with the existing systems would depressurize/ventilate areas of the slab where SSSV concentrations have the greatest potential to create indoor air concentrations greater than typical indoor air background concentrations. The design approach to mitigate the proposed area was approved by NYSDEC in a letter dated September 12, 2018.

2 Sampling Overview

In accordance with the work plan, additional nested SSSV sampling points were installed to identify and/or evaluate potential sources of soil vapor at varying depths through the vadose zone (vapor profiling). As shown on **Figure 2**, vapor profiling was conducted at four SSSV locations where historic soil vapor concentrations were the highest, and where chemical profiles differed.

2.1 Sample Point Installation

Three SSSV samples were collected at each location; approximately 1 inch below the base of the concrete slab; at approximately 4 feet below the base of the concrete slab, and approximately 1 foot above groundwater (approximately 7.5 to 8 feet below the base of the slab). The shallow SSSV sample was collected through a temporary soil vapor point installed by Ramboll on October 17, 2019, immediately prior to sample collection.

The deeper SSSV samples were collected through permanent soil vapor points installed by AECOM between June and August 2019. Hydrated bentonite was added between the deeper soil vapor points to separate the zones. Hydrated bentonite was also used between the 4-foot vapor point and base of the concrete slab. Additional details regarding installation of the soil vapor points are included in the *Building 2 Subsurface Investigation Summary Report* prepared by AECOM on behalf of LMC.

2.2 Sample Collection

Twelve SSSV samples were collected from four sample locations in accordance with the NYSDEC approved work plan. An additional duplicate sample was collected to assess overall precision. Samples were collected over an approximate two-hour period utilizing batch-certified 6-liter pre-evacuated canisters. The samples were analyzed by a laboratory that is certified by the Environmental Laboratory Approval Program and certified by NYSDOH for USEPA Method TO-15 under routine Chain-of-Custody protocols. Laboratory reports are provided as **Attachment 1** and copies of completed field forms are provided as **Attachment 2**.

Given that the samples were collected through temporary and permanent soil vapor points, a helium tracer gas was used at each sampling location to verify the integrity of the seal between the sample tubing and concrete at the temporary soil vapor point, and between the tubing and bentonite at the permanent soil vapor points, before and after sample collection.

[2] An Operation, Maintenance and Monitoring (OMM) plan dated June 3, 2019 was approved by NYSDEC on June 6, 2019.

3 Findings and Summary

The four SSSV sampling locations (SS-15, SS-16, SS-24, and SS-25) are shown on **Figure 2**. A summary of detected SSSV sample results are presented in **Table 1**[3]. Sample results are presented in units of micrograms per cubic meter (µg/m^3).

Of the twelve SSSV compounds detected above laboratory reporting limits shown in **Table 1**, nine were chlorinated volatile organic compounds (CVOCs). The remaining three compounds, (acetone, benzene, and 1,4-dioxane) were detected at two sample locations (SS-24 and SS-25) at relatively low concentrations.

1,1,1-Trichloroethane (TCA), 1,1-dichloroethane (11DCA), and 1,1-dichloroethene (11DCE) were detected in each sample (at each elevation and every sample location). The highest SSSV CVOC detected was 111TCA (4,540,000 µg/m^3) at the 8-foot vapor point at location SS-16. The second highest CVOC detected was 11DCE (690,000 µg/m^3) at the 8-foot vapor point at location SS-24.

The 8-foot vapor point at location SS-16 yielded the highest total CVOC concentration (5,483,500 µg/m^3) of the samples collected. The second highest total CVOC concentration (3,534,380 µg/m^3) was also at location SS-16, but at the 4-foot vapor point. Although total CVOC concentrations at the 4- and 8-foot vapor points at SS-16 were the highest observed, the total CVOC concentrations observed at the shallow (base of slab) vapor point was 58,310 µg/m^3, resulting in an approximate 99% reduction through the vadose zone (from the 8-foot vapor point to the shallow vapor point).

Similar concentration reductions through the vadose zone were observed at sample location SS-24, where an approximate 98% reduction of total CVOCs between the 8-foot vapor point and shallow vapor point occurred. At locations SS-15 and SS-25, vadose zone reductions of CVOCs were 87% and 94%, respectively.

It is worth noting that for the benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds, only benzene was detected at sample locations SS-24 and SS-25, and at much lower concentrations than the CVOCs.

4 Conclusions and Recommendations

These results confirm previous findings that TCA and 11DCE are the primary SSSV components, and thus the compounds with the highest potential for VI. The elevated TCA concentrations detected at location SS-16 during this sample event are consistent with the July 2017 SSSV sampling event where TCA was found at its highest concentration in SSSV and at an order of magnitude higher than 11DCE[4].

Similarly, 11DCE was the primary CVOC detected at locations SS-24 and SS-25 during this sample event, and during previous sampling events in July and October 2017. At sample location SS-15, 11DCE and 11DCA were found at levels comparable to those observed during the July 2017 sampling event.

It is worth noting that CVOC concentrations observed at the shallow vapor points collected during this sample event are, in general, lower than those observed during previous sampling events. In some

[3] Note that samples collected at location SS-16 were inadvertently named as SS-06.

[4] As documented in the *2016-2018 Vapor Intrusion Activities Report,* prepared by Ramboll, dated February 6, 2019

cases, the most recent sample results are an order of magnitude lower (*e.g.* TCA at location SS-16). This delta may be due in part to temporal fluctuations as a result of installation of sub-slab piping for the SSDS-25 mitigation system.

The extent of soil and groundwater impacts has been well-defined and is documented in the *Subsurface Investigation Summary Report*, prepared by AECOM, dated December 3, 2019. The extent of SSSV has been well-defined, as noted in the *2016-2018 Vapor Intrusion Activities Report*, prepared by Ramboll, dated February 6, 2019. CVOC concentrations during this sample event were generally found to be highest in the deep vapor points, and CVOC concentrations rapidly decreased/degraded through the vadose zone; thus, a different source of SSSV was not identified in the vadose zone.

Figure 3 delineates the extent of the primary mass of SSSV as established following previous SSSV sampling events. **Figure 3** also identifies the location of proposed and existing mitigation systems. Given that these sample results did not identify a different source of SSSV in the vadose zone, it can be inferred that the proposed SSDS-25 mitigation area, when combined with the existing mitigation systems, would depressurize areas of the slab where SSSV concentrations have the greatest potential to create indoor air concentrations greater than the typical indoor air background levels.

Attachments: Table 1 – Nested Subslab Soil Vapor Sample Results – Summary of Detections
Figure 1 – Site Layout
Figure 2 – Sampling Results October 2019
Figure 3 – Interpolated Sub-Slab Soil Vapor Concentrations of Total Chlorinated VOCs Latest Sample Results
Attachment 1 – Data Usability Summary Report (DUSR) and Laboratory Report
Attachment 2 – Field Data Forms

TABLE

Nested Subslab Soil Vapor Sample Results - Summary of Detections

Sample Location	SS-16*			SS-25				SS-15			SS-24		
Sample ID	SSSV-06-101719-A	SSSV-06-101719-B	SSSV06-101719-C	SSSV25-101719-A	SSSV25-101719-A2	SSSV25-101719-B	SSSV25-101719-C	SSSV15-101719-A	SSSV15-101719-B	SSSV15-101719-C	SSSV24-101719-A	SSSV24-101719-B	SSSV24-101719-C
Sample Date	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019
Analysis	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15	TO-15
Units	µg/m^3	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m^3	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3
Depth	Base of Slab	4'	8'	Base of Slab	Base of Slab (Duplicate)	4'	8'	Base of Slab	4'	8'	Base of Slab	4'	8'
1,1,1-Trichloroethane	**50,200**	**3,060,000**	**4,540,000**	**3,300**	**3,490**	**45,100**	**40,400**	**11,400**	**72,000**	**80,200**	**212**	**10,500**	**7,910**
1,1-Dichloroethane	**2,380**	**66,800**	**178,000**	**7,160**	**7,240**	**91,100**	**53,400**	**40,900**	**181,000**	**255,000**	**7,970**	**214,000**	**383,000**
1,1-Dichloroethene	**4,600**	**359,000**	**642,000**	**20,600**	**21,200**	**408,000**	**404,000**	**24,100**	**183,000**	**189,000**	**8,800**	**444,000**	**690,000**
1,2-Dichloroethane	< 113	< 6760	< 6760	**130**	**139**	< 1130	< 1190	< 83.4	< 482	< 615	**30.8**	**1,190**	**5,140**
1,2-Dichloroethene (total)	< 110	< 6620	< 6620	< 51.5	< 50.4	< 1100	< 1170	< 81.7	< 472	< 603	**66.2**	**1,780**	**4,920**
1,4-Dioxane	< 100	< 6020	< 6020	< 46.8	< 45.8	< 1000	< 1060	< 74.2	< 429	< 548	**70.6**	< 1060	< 1500
Acetone	< 330	< 19800	< 19800	< 154	< 151	< 3300	< 3490	< 245	< 1410	< 1800	**81.5**	< 3490	< 4940
Benzene	< 88.8	< 5340	< 5340	**49.2**	**51**	< 888	< 939	< 65.8	< 380	< 486	< 20.9	**1,350**	**2,810**
Chloroethane	**145**	**9,080**	**58,300**	< 34.3	**35**	< 734	< 776	**3,300**	**23,100**	**71,800**	**19.3**	< 776	< 1100
cis-1,2-Dichloroethene	< 110	< 6620	< 6620	< 51.5	< 50.4	< 1100	< 1170	< 81.7	< 472	< 603	**66.2**	**1,780**	**4,920**
Tetrachloroethene	**1,130**	**39,500**	**65,200**	**472**	**509**	**4,790**	**3,220**	**627**	**4,340**	**3,780**	< 44.3	< 1990	< 2830
Trichloroethene	< 149	< 8970	< 8970	**133**	**144**	**1,560**	< 1580	**477**	**1,810**	**1,770**	< 35.1	< 1580	< 2240
Total CVOC	***58,310***	***3,534,380***	***5,483,500***	***31,060***	***32,757***	***550,550***	***501,020***	***79,700***	***465,250***	***601,550***	***16,770***	***673,250***	***1,095,890***

'**Bold**' value indicates compound was detected.
'<' Indicates compound was not detected above reporting limit. Reporting limit reported.
CVOC - chlorinated volatile organic compounds
*Note that samples collected at location SS-16 were inadvertently named as SS-06.

FIGURES

I:\Lockheed-Mar-Fs.5851\71949.2019-Services-7\Docs\DWG\MXD\Sampling_Results\Site_Layout.mxd

SITE BOUNDARY

0 100 200 Feet

SITE LAYOUT

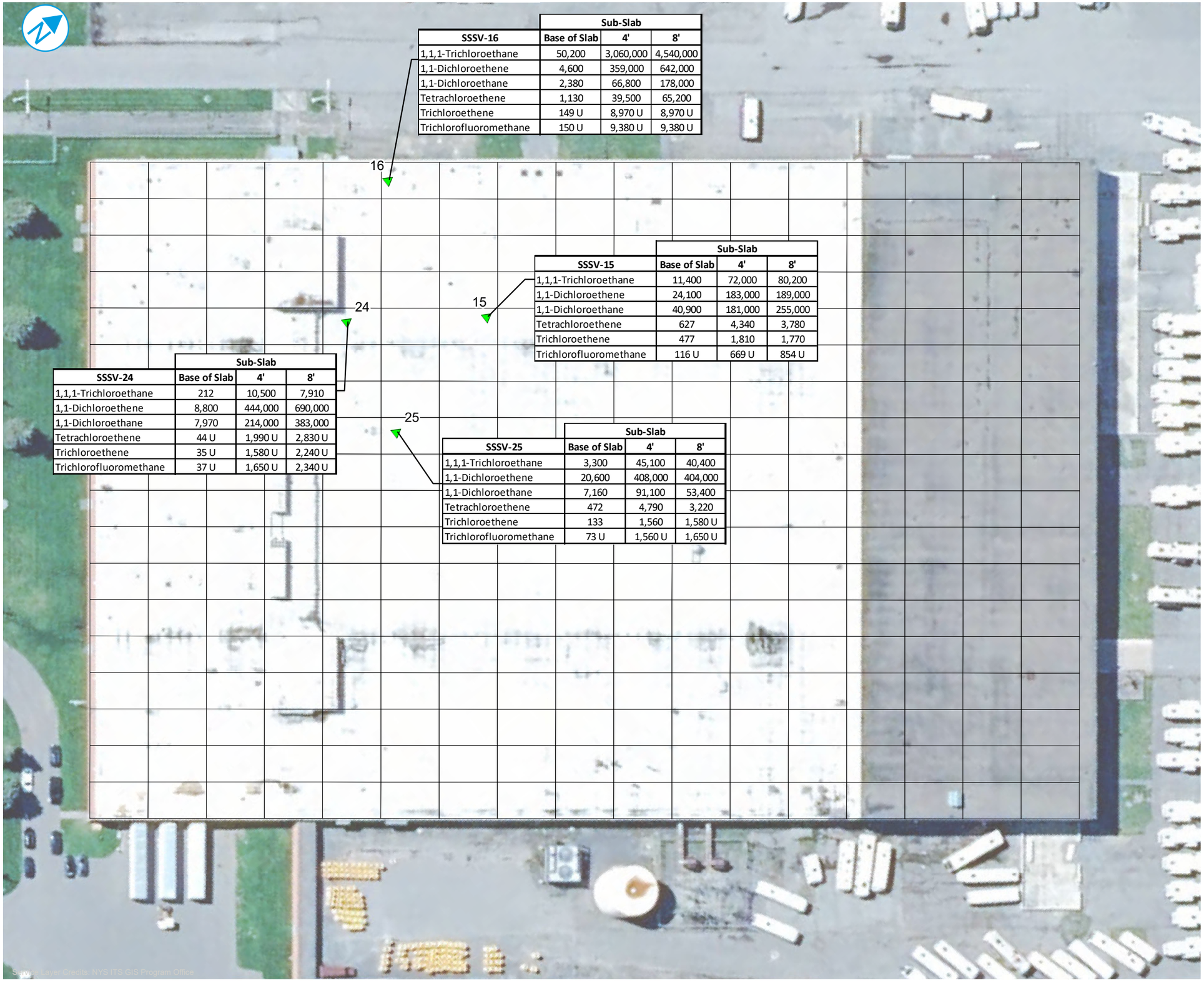
FORMER GE FARRELL ROAD SITE
GEDDES, NY

FIGURE 01

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 5851.71949 | DATED: 1/29/2020 | DESIGNER: NEWTONJM



▲ NESTED SUB-SLAB SAMPLE LOCATION

25W X 40H GRID (18 ROWS & 17 COLUMNS)

LOCATION ID

SSSV-15	Sub-Slab Base of Slab	4'	8'
1,1,1-Trichloroethane	11,400	72,000	80,200
1,1-Dichloroethene	24,100	183,000	189,000
1,1-Dichloroethane	40,900	181,000	255,000
Tetrachloroethene	627	4,340	3,780
Trichloroethene	477	1,810	1,770
Trichlorofluoromethane	116 U	669 U	854 U

ANALYTE

RESULTS (ug/m3)

Notes

- LOCATIONS APPROXIMATE
- 'U' INDICATES COMPOUND WAS NOT DETECTED (ND) ABOVE REPORTING LIMIT. REPORTING LIMIT REPORTED.

0 32.5 65 Feet

SAMPLING RESULTS
OCTOBER 2019

FORMER GE FARRELL ROAD SITE
GEDDES, NY

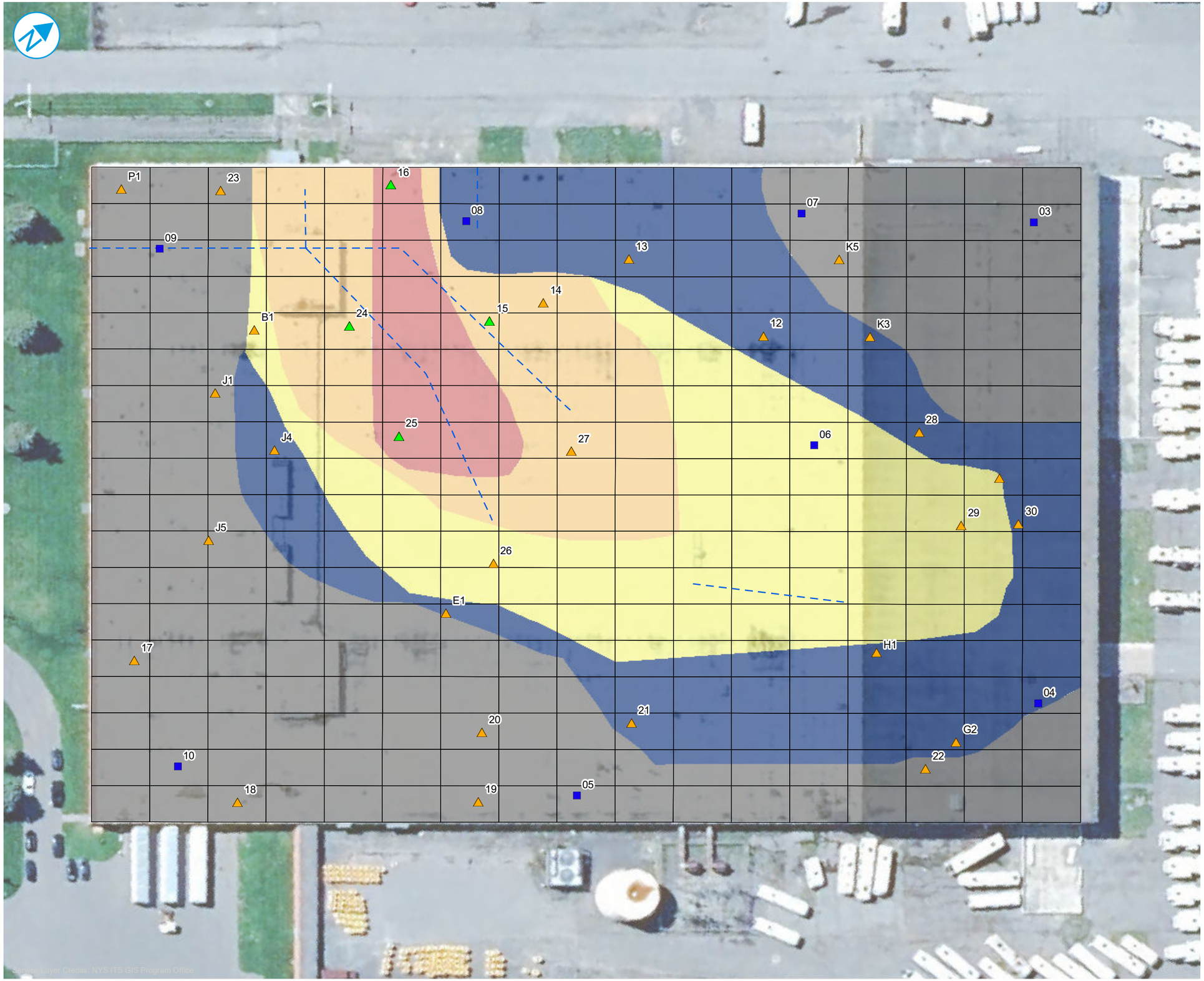
FIGURE 02

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

I:\Lockheed-Mar-Fs.585\171949.2019-Services-7\Docs\DWG\MXD\Sampling_Results
PROJECT: 169000XXXX | DATED: 8/19/2020 | DESIGNER: NEWTONJM

I:\Lockheed-Mar-Fs.585\171949.2019-Services-7\Docs\DWG\MXD\Sampling_Results\Interpolated_SSSV_Concentrations_of_TCVOCS.mxd



- SUB-SLAB & INDOOR AIR SAMPLE
- HISTORIC SUB-SLAB SAMPLE LOCATION
- NESTED SUB-SLAB SAMPLE LOCATION
- SUB-SLAB DEPRESSURIZATION SYSTEM PIPING
- 25W X 40H GRID (18 ROWS & 17 COLUMNS)

SUM OF VOCs (µg/m³) IN SUB-SLAB VAPOR

- >200,000
- 50,000 - 199,999
- 15,000 - 49,999
- 1,000 - 14,999
- <1,000

Notes
- LOCATIONS APPROXIMATE

0 32.5 65 Feet

INTERPOLATED SUB-SLAB SOIL VAPOR CONCENTRATIONS OF TOTAL CHLORINATED VOCS LATEST SAMPLE RESULTS

FORMER GE FARRELL ROAD SITE
GEDDES, NY

FIGURE 03

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 5851.71949 | DATED: 1/29/2020 | DESIGNER: NEWTONJM

ATTACHMENT 1
DATA USABILITY SUMMARY REPORT (DUSR) AND LABORATORY REPORT

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Lockheed Martin
SDG#L1949041
February 11, 2020
Sampling date: 10/17/2019

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for O'Brien and Gere Inc., project located at Lockheed Martin, Alpha Analytical, #L1949041 submitted to Vali-Data of WNY, LLC on January 23, 2020. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines (SOP NO. HW-31, revision 6). The laboratory performed the analysis using Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD/Duplicate
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check
-Canister Certification Blanks

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in Holding Times.

All samples were diluted due to high target analyte concentrations.
All results were recorded to the reporting limits.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met except the final pressure was outside QC limits, high in SSSV-06-101719-C, SSSV-25-101719-C and SSSV-24-101719-A. Target analytes in these samples should be qualified as estimated.
The final pressure was outside QC limits, low in SSSV-25-101719-A2. Target analytes detected in this sample should be qualified as estimated.

INTERNAL STANDARD (IS)
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
No field duplicate was acquired.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD/DUPLICATE
All criteria were met except Chloroethane was detected in SSSV-25-101719-ADUP but was not detected in SSSV-25-101719-A.
No MS/MSD was acquired.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

CANISTER CERTIFICATION BLANKS

All criteria were met except there were detects in the batch sample cans above the MDL, below the reporting limit.

ANALYTICAL REPORT

Lab Number:	L1949041
Client:	O'Brien and Gere
	333 W. Washington Street
	Syracus, NY 13221
ATTN:	Eric Alongi
Phone:	(315) 956-6674
Project Name:	LOCKHEED MARTIN
Project Number:	Not Specified
Report Date:	10/25/19

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1949041-01	SSSV-06-101719-A	SOIL_VAPOR	SYRACUSE, NY	10/17/19 10:18	10/18/19
L1949041-02	SSSV-06-101719-B	SOIL_VAPOR	SYRACUSE, NY	10/17/19 10:18	10/18/19
L1949041-03	SSSV06-101719-C	SOIL_VAPOR	SYRACUSE, NY	10/17/19 10:18	10/18/19
L1949041-04	SSSV25-101719-B	SOIL_VAPOR	SYRACUSE, NY	10/17/19 11:10	10/18/19
L1949041-05	SSSV25-101719-A	SOIL_VAPOR	SYRACUSE, NY	10/17/19 11:10	10/18/19
L1949041-06	SSSV25-101719-A2	SOIL_VAPOR	SYRACUSE, NY	10/17/19 09:50	10/18/19
L1949041-07	SSSV25-101719-C	SOIL_VAPOR	SYRACUSE, NY	10/17/19 11:37	10/18/19
L1949041-08	SSSV15-101719-C	SOIL_VAPOR	SYRACUSE, NY	10/17/19 12:03	10/18/19
L1949041-09	SSSV15-101719-B	SOIL_VAPOR	SYRACUSE, NY	10/17/19 12:30	10/18/19
L1949041-10	SSSV15-101719-A	SOIL_VAPOR	SYRACUSE, NY	10/17/19 12:48	10/18/19
L1949041-11	SSSV24-101719-A	SOIL_VAPOR	SYRACUSE, NY	10/17/19 13:14	10/18/19
L1949041-12	SSSV24-101719-B	SOIL_VAPOR	SYRACUSE, NY	10/17/19 13:12	10/18/19
L1949041-13	SSSV24-101719-C	SOIL_VAPOR	SYRACUSE, NY	10/17/19 13:12	10/18/19
L1949041-14	UNUSED CAN #1050	SOIL_VAPOR	SYRACUSE, NY		10/18/19

Project Name:	LOCKHEED MARTIN	**Lab Number:**	L1949041
Project Number:	Not Specified	**Report Date:**	10/25/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	LOCKHEED MARTIN	**Lab Number:**	L1949041
Project Number:	Not Specified	**Report Date:**	10/25/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on October 16, 2019. The canister certification results are provided as an addendum.

L1949041-01-13: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1949041-03: The sample was re-analyzed on dilution in order to quantify the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 10/25/19

AIR

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-01 D
Client ID: SSSV-06-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 20:16
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	27.8	--	ND	137	--		138.9
Chloromethane	ND	27.8	--	ND	57.4	--		138.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	27.8	--	ND	194	--		138.9
Vinyl chloride	ND	27.8	--	ND	71.1	--		138.9
1,3-Butadiene	ND	27.8	--	ND	61.5	--		138.9
Bromomethane	ND	27.8	--	ND	108	--		138.9
Chloroethane	55.1	27.8	--	145	73.4	--		138.9
Ethyl Alcohol	ND	694	--	ND	1310	--		138.9
Vinyl bromide	ND	27.8	--	ND	122	--		138.9
Acetone	ND	139	--	ND	330	--		138.9
Trichlorofluoromethane	ND	27.8	--	ND	156	--		138.9
iso-Propyl Alcohol	ND	69.4	--	ND	171	--		138.9
1,1-Dichloroethene	1160	27.8	--	4600	110	--		138.9
tert-Butyl Alcohol	ND	69.4	--	ND	210	--		138.9
Methylene chloride	ND	69.4	--	ND	241	--		138.9
3-Chloropropene	ND	27.8	--	ND	87.0	--		138.9
Carbon disulfide	ND	27.8	--	ND	86.6	--		138.9
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	27.8	--	ND	213	--		138.9
trans-1,2-Dichloroethene	ND	27.8	--	ND	110	--		138.9
1,1-Dichloroethane	588	27.8	--	2380	113	--		138.9
Methyl tert butyl ether	ND	27.8	--	ND	100	--		138.9
2-Butanone	ND	69.4	--	ND	205	--		138.9
cis-1,2-Dichloroethene	ND	27.8	--	ND	110	--		138.9

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-01 D
Client ID: SSSV-06-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	69.4	--	ND	250	--		138.9
Chloroform	ND	27.8	--	ND	136	--		138.9
Tetrahydrofuran	ND	69.4	--	ND	205	--		138.9
1,2-Dichloroethane	ND	27.8	--	ND	113	--		138.9
n-Hexane	ND	27.8	--	ND	98.0	--		138.9
1,1,1-Trichloroethane	9200	27.8	--	50200	152	--		138.9
Benzene	ND	27.8	--	ND	88.8	--		138.9
Carbon tetrachloride	ND	27.8	--	ND	175	--		138.9
Cyclohexane	ND	27.8	--	ND	95.7	--		138.9
1,2-Dichloropropane	ND	27.8	--	ND	128	--		138.9
Xylene (Total)	ND	27.8	--	ND	121	--		138.9
Bromodichloromethane	ND	27.8	--	ND	186	--		138.9
1,4-Dioxane	ND	27.8	--	ND	100	--		138.9
Trichloroethene	ND	27.8	--	ND	149	--		138.9
2,2,4-Trimethylpentane	ND	27.8	--	ND	130	--		138.9
Heptane	ND	27.8	--	ND	114	--		138.9
cis-1,3-Dichloropropene	ND	27.8	--	ND	126	--		138.9
4-Methyl-2-pentanone	ND	69.4	--	ND	284	--		138.9
trans-1,3-Dichloropropene	ND	27.8	--	ND	126	--		138.9
1,1,2-Trichloroethane	ND	27.8	--	ND	152	--		138.9
Toluene	ND	27.8	--	ND	105	--		138.9
1,2-Dichloroethene (total)	ND	27.8	--	ND	110	--		138.9
2-Hexanone	ND	27.8	--	ND	114	--		138.9
1,3-Dichloropropene, Total	ND	27.8	--	ND	126	--		138.9
Dibromochloromethane	ND	27.8	--	ND	237	--		138.9
1,2-Dibromoethane	ND	27.8	--	ND	214	--		138.9

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-01 D
Client ID: SSSV-06-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	166	27.8	--	1130	189	--		138.9
Chlorobenzene	ND	27.8	--	ND	128	--		138.9
Ethylbenzene	ND	27.8	--	ND	121	--		138.9
p/m-Xylene	ND	55.6	--	ND	242	--		138.9
Bromoform	ND	27.8	--	ND	287	--		138.9
Styrene	ND	27.8	--	ND	118	--		138.9
1,1,2,2-Tetrachloroethane	ND	27.8	--	ND	191	--		138.9
o-Xylene	ND	27.8	--	ND	121	--		138.9
4-Ethyltoluene	ND	27.8	--	ND	137	--		138.9
1,3,5-Trimethylbenzene	ND	27.8	--	ND	137	--		138.9
1,2,4-Trimethylbenzene	ND	27.8	--	ND	137	--		138.9
Benzyl chloride	ND	27.8	--	ND	144	--		138.9
1,3-Dichlorobenzene	ND	27.8	--	ND	167	--		138.9
1,4-Dichlorobenzene	ND	27.8	--	ND	167	--		138.9
1,2-Dichlorobenzene	ND	27.8	--	ND	167	--		138.9
1,2,4-Trichlorobenzene	ND	27.8	--	ND	206	--		138.9
Hexachlorobutadiene	ND	27.8	--	ND	297	--		138.9

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	99		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-02 D
Client ID: SSSV-06-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 20:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1670	--	ND	8260	--		8333
Chloromethane	ND	1670	--	ND	3450	--		8333
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1670	--	ND	11700	--		8333
Vinyl chloride	ND	1670	--	ND	4270	--		8333
1,3-Butadiene	ND	1670	--	ND	3690	--		8333
Bromomethane	ND	1670	--	ND	6480	--		8333
Chloroethane	3440	1670	--	9080	4410	--		8333
Ethyl Alcohol	ND	41700	--	ND	78600	--		8333
Vinyl bromide	ND	1670	--	ND	7300	--		8333
Acetone	ND	8330	--	ND	19800	--		8333
Trichlorofluoromethane	ND	1670	--	ND	9380	--		8333
iso-Propyl Alcohol	ND	4170	--	ND	10300	--		8333
1,1-Dichloroethene	90500	1670	--	359000	6620	--		8333
tert-Butyl Alcohol	ND	4170	--	ND	12600	--		8333
Methylene chloride	ND	4170	--	ND	14500	--		8333
3-Chloropropene	ND	1670	--	ND	5230	--		8333
Carbon disulfide	ND	1670	--	ND	5200	--		8333
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1670	--	ND	12800	--		8333
trans-1,2-Dichloroethene	ND	1670	--	ND	6620	--		8333
1,1-Dichloroethane	16500	1670	--	66800	6760	--		8333
Methyl tert butyl ether	ND	1670	--	ND	6020	--		8333
2-Butanone	ND	4170	--	ND	12300	--		8333
cis-1,2-Dichloroethene	ND	1670	--	ND	6620	--		8333

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-02 D
Client ID: SSSV-06-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	4170	--	ND	15000	--		8333
Chloroform	ND	1670	--	ND	8160	--		8333
Tetrahydrofuran	ND	4170	--	ND	12300	--		8333
1,2-Dichloroethane	ND	1670	--	ND	6760	--		8333
n-Hexane	ND	1670	--	ND	5890	--		8333
1,1,1-Trichloroethane	561000	1670	--	3060000	9110	--		8333
Benzene	ND	1670	--	ND	5340	--		8333
Carbon tetrachloride	ND	1670	--	ND	10500	--		8333
Cyclohexane	ND	1670	--	ND	5750	--		8333
1,2-Dichloropropane	ND	1670	--	ND	7720	--		8333
Xylene (Total)	ND	1670	--	ND	7250	--		8333
Bromodichloromethane	ND	1670	--	ND	11200	--		8333
1,4-Dioxane	ND	1670	--	ND	6020	--		8333
Trichloroethene	ND	1670	--	ND	8970	--		8333
2,2,4-Trimethylpentane	ND	1670	--	ND	7800	--		8333
Heptane	ND	1670	--	ND	6840	--		8333
cis-1,3-Dichloropropene	ND	1670	--	ND	7580	--		8333
4-Methyl-2-pentanone	ND	4170	--	ND	17100	--		8333
trans-1,3-Dichloropropene	ND	1670	--	ND	7580	--		8333
1,1,2-Trichloroethane	ND	1670	--	ND	9110	--		8333
Toluene	ND	1670	--	ND	6290	--		8333
1,2-Dichloroethene (total)	ND	1670	--	ND	6620	--		8333
2-Hexanone	ND	1670	--	ND	6840	--		8333
1,3-Dichloropropene, Total	ND	1670	--	ND	7580	--		8333
Dibromochloromethane	ND	1670	--	ND	14200	--		8333
1,2-Dibromoethane	ND	1670	--	ND	12800	--		8333

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-02 D
Client ID: SSSV-06-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	5820	1670	--	39500	11300	--		8333
Chlorobenzene	ND	1670	--	ND	7690	--		8333
Ethylbenzene	ND	1670	--	ND	7250	--		8333
p/m-Xylene	ND	3330	--	ND	14500	--		8333
Bromoform	ND	1670	--	ND	17300	--		8333
Styrene	ND	1670	--	ND	7110	--		8333
1,1,2,2-Tetrachloroethane	ND	1670	--	ND	11500	--		8333
o-Xylene	ND	1670	--	ND	7250	--		8333
4-Ethyltoluene	ND	1670	--	ND	8210	--		8333
1,3,5-Trimethylbenzene	ND	1670	--	ND	8210	--		8333
1,2,4-Trimethylbenzene	ND	1670	--	ND	8210	--		8333
Benzyl chloride	ND	1670	--	ND	8650	--		8333
1,3-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,4-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,2-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,2,4-Trichlorobenzene	ND	1670	--	ND	12400	--		8333
Hexachlorobutadiene	ND	1670	--	ND	17800	--		8333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	100		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-03 D
Client ID: SSSV06-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 21:28
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1670	--	ND	8260	--		8333
Chloromethane	ND	1670	--	ND	3450	--		8333
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1670	--	ND	11700	--		8333
Vinyl chloride	ND	1670	--	ND	4270	--		8333
1,3-Butadiene	ND	1670	--	ND	3690	--		8333
Bromomethane	ND	1670	--	ND	6480	--		8333
Chloroethane	22100	1670	--	58300	4410	--		8333
Ethyl Alcohol	ND	41700	--	ND	78600	--		8333
Vinyl bromide	ND	1670	--	ND	7300	--		8333
Acetone	ND	8330	--	ND	19800	--		8333
Trichlorofluoromethane	ND	1670	--	ND	9380	--		8333
iso-Propyl Alcohol	ND	4170	--	ND	10300	--		8333
1,1-Dichloroethene	162000	1670	--	642000	6620	--		8333
tert-Butyl Alcohol	ND	4170	--	ND	12600	--		8333
Methylene chloride	ND	4170	--	ND	14500	--		8333
3-Chloropropene	ND	1670	--	ND	5230	--		8333
Carbon disulfide	ND	1670	--	ND	5200	--		8333
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1670	--	ND	12800	--		8333
trans-1,2-Dichloroethene	ND	1670	--	ND	6620	--		8333
1,1-Dichloroethane	44100	1670	--	178000	6760	--		8333
Methyl tert butyl ether	ND	1670	--	ND	6020	--		8333
2-Butanone	ND	4170	--	ND	12300	--		8333
cis-1,2-Dichloroethene	ND	1670	--	ND	6620	--		8333

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-03 D
Client ID: SSSV06-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	4170	--	ND	15000	--		8333
Chloroform	ND	1670	--	ND	8160	--		8333
Tetrahydrofuran	ND	4170	--	ND	12300	--		8333
1,2-Dichloroethane	ND	1670	--	ND	6760	--		8333
n-Hexane	ND	1670	--	ND	5890	--		8333
1,1,1-Trichloroethane	961000	1670	--	5240000	9110	--	E	8333
Benzene	ND	1670	--	ND	5340	--		8333
Carbon tetrachloride	ND	1670	--	ND	10500	--		8333
Cyclohexane	ND	1670	--	ND	5750	--		8333
1,2-Dichloropropane	ND	1670	--	ND	7720	--		8333
Bromodichloromethane	ND	1670	--	ND	11200	--		8333
Xylene (Total)	ND	1670	--	ND	7250	--		8333
1,4-Dioxane	ND	1670	--	ND	6020	--		8333
Trichloroethene	ND	1670	--	ND	8970	--		8333
2,2,4-Trimethylpentane	ND	1670	--	ND	7800	--		8333
Heptane	ND	1670	--	ND	6840	--		8333
cis-1,3-Dichloropropene	ND	1670	--	ND	7580	--		8333
4-Methyl-2-pentanone	ND	4170	--	ND	17100	--		8333
trans-1,3-Dichloropropene	ND	1670	--	ND	7580	--		8333
1,1,2-Trichloroethane	ND	1670	--	ND	9110	--		8333
Toluene	ND	1670	--	ND	6290	--		8333
1,2-Dichloroethene (total)	ND	1670	--	ND	6620	--		8333
2-Hexanone	ND	1670	--	ND	6840	--		8333
Dibromochloromethane	ND	1670	--	ND	14200	--		8333
1,3-Dichloropropene, Total	ND	1670	--	ND	7580	--		8333
1,2-Dibromoethane	ND	1670	--	ND	12800	--		8333

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-03 D
Client ID: SSSV06-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	9620	1670	--	65200	11300	--		8333
Chlorobenzene	ND	1670	--	ND	7690	--		8333
Ethylbenzene	ND	1670	--	ND	7250	--		8333
p/m-Xylene	ND	3330	--	ND	14500	--		8333
Bromoform	ND	1670	--	ND	17300	--		8333
Styrene	ND	1670	--	ND	7110	--		8333
1,1,2,2-Tetrachloroethane	ND	1670	--	ND	11500	--		8333
o-Xylene	ND	1670	--	ND	7250	--		8333
4-Ethyltoluene	ND	1670	--	ND	8210	--		8333
1,3,5-Trimethylbenzene	ND	1670	--	ND	8210	--		8333
1,2,4-Trimethylbenzene	ND	1670	--	ND	8210	--		8333
Benzyl chloride	ND	1670	--	ND	8650	--		8333
1,3-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,4-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,2-Dichlorobenzene	ND	1670	--	ND	10000	--		8333
1,2,4-Trichlorobenzene	ND	1670	--	ND	12400	--		8333
Hexachlorobutadiene	ND	1670	--	ND	17800	--		8333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	101		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-03 D2
Client ID: SSSV06-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 10:18
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 07:45
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,1-Trichloroethane	833000	2500	--	4540000	13600	--		12500

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-04 D
Client ID: SSSV25-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 22:05
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	278.	--	ND	1370	--		1389
Chloromethane	ND	278.	--	ND	574	--		1389
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	278.	--	ND	1940	--		1389
Vinyl chloride	ND	278.	--	ND	711	--		1389
1,3-Butadiene	ND	278.	--	ND	615	--		1389
Bromomethane	ND	278.	--	ND	1080	--		1389
Chloroethane	ND	278	--	ND	734	--		1389
Ethyl Alcohol	ND	6940	--	ND	13100	--		1389
Vinyl bromide	ND	278.	--	ND	1220	--		1389
Acetone	ND	1390	--	ND	3300	--		1389
Trichlorofluoromethane	ND	278.	--	ND	1560	--		1389
iso-Propyl Alcohol	ND	694.	--	ND	1710	--		1389
1,1-Dichloroethene	103000	278	--	408000	1100	--		1389
tert-Butyl Alcohol	ND	694.	--	ND	2100	--		1389
Methylene chloride	ND	694	--	ND	2410	--		1389
3-Chloropropene	ND	278.	--	ND	870	--		1389
Carbon disulfide	ND	278.	--	ND	866	--		1389
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	278.	--	ND	2130	--		1389
trans-1,2-Dichloroethene	ND	278.	--	ND	1100	--		1389
1,1-Dichloroethane	22500	278	--	91100	1130	--		1389
Methyl tert butyl ether	ND	278.	--	ND	1000	--		1389
2-Butanone	ND	694.	--	ND	2050	--		1389
cis-1,2-Dichloroethene	ND	278	--	ND	1100	--		1389

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-04 D
Client ID: SSSV25-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	694.	--	ND	2500	--		1389
Chloroform	ND	278	--	ND	1360	--		1389
Tetrahydrofuran	ND	694.	--	ND	2050	--		1389
1,2-Dichloroethane	ND	278	--	ND	1130	--		1389
n-Hexane	ND	278.	--	ND	980	--		1389
1,1,1-Trichloroethane	8260	278	--	45100	1520	--		1389
Benzene	ND	278	--	ND	888	--		1389
Carbon tetrachloride	ND	278.	--	ND	1750	--		1389
Cyclohexane	ND	278.	--	ND	957	--		1389
1,2-Dichloropropane	ND	278.	--	ND	1280	--		1389
Xylene (Total)	ND	278.	--	ND	1210	--		1389
Bromodichloromethane	ND	278.	--	ND	1860	--		1389
1,4-Dioxane	ND	278.	--	ND	1000	--		1389
Trichloroethene	290	278	--	1560	1490	--		1389
2,2,4-Trimethylpentane	ND	278	--	ND	1300	--		1389
Heptane	ND	278.	--	ND	1140	--		1389
cis-1,3-Dichloropropene	ND	278.	--	ND	1260	--		1389
4-Methyl-2-pentanone	ND	694.	--	ND	2840	--		1389
trans-1,3-Dichloropropene	ND	278.	--	ND	1260	--		1389
1,1,2-Trichloroethane	ND	278.	--	ND	1520	--		1389
Toluene	ND	278.	--	ND	1050	--		1389
1,2-Dichloroethene (total)	ND	278.	--	ND	1100	--		1389
2-Hexanone	ND	278.	--	ND	1140	--		1389
Dibromochloromethane	ND	278.	--	ND	2370	--		1389
1,3-Dichloropropene, Total	ND	278.	--	ND	1260	--		1389
1,2-Dibromoethane	ND	278.	--	ND	2140	--		1389

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-04 D
Client ID: SSSV25-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	706	278	--	4790	1890	--		1389
Chlorobenzene	ND	278.	--	ND	1280	--		1389
Ethylbenzene	ND	278.	--	ND	1210	--		1389
p/m-Xylene	ND	556.	--	ND	2420	--		1389
Bromoform	ND	278.	--	ND	2870	--		1389
Styrene	ND	278.	--	ND	1180	--		1389
1,1,2,2-Tetrachloroethane	ND	278.	--	ND	1910	--		1389
o-Xylene	ND	278.	--	ND	1210	--		1389
4-Ethyltoluene	ND	278.	--	ND	1370	--		1389
1,3,5-Trimethylbenzene	ND	278.	--	ND	1370	--		1389
1,2,4-Trimethylbenzene	ND	278.	--	ND	1370	--		1389
Benzyl chloride	ND	278.	--	ND	1440	--		1389
1,3-Dichlorobenzene	ND	278.	--	ND	1670	--		1389
1,4-Dichlorobenzene	ND	278.	--	ND	1670	--		1389
1,2-Dichlorobenzene	ND	278.	--	ND	1670	--		1389
1,2,4-Trichlorobenzene	ND	278.	--	ND	2060	--		1389
Hexachlorobutadiene	ND	278.	--	ND	2970	--		1389

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	100		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-05 D
Client ID: SSSV25-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 22:43
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	13.0	--	ND	64.3	--		64.77
Chloromethane	ND	13.0	--	ND	26.8	--		64.77
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	13.0	--	ND	90.9	--		64.77
Vinyl chloride	ND	13.0	--	ND	33.2	--		64.77
1,3-Butadiene	ND	13.0	--	ND	28.8	--		64.77
Bromomethane	ND	13.0	--	ND	50.5	--		64.77
Chloroethane	ND	13.0	--	ND	34.3	--		64.77
Ethyl Alcohol	ND	324	--	ND	610	--		64.77
Vinyl bromide	ND	13.0	--	ND	56.8	--		64.77
Acetone	ND	64.8	--	ND	154	--		64.77
Trichlorofluoromethane	ND	13.0	--	ND	73.1	--		64.77
iso-Propyl Alcohol	ND	32.4	--	ND	79.6	--		64.77
1,1-Dichloroethene	5200	13.0	--	20600	51.5	--		64.77
tert-Butyl Alcohol	ND	32.4	--	ND	98.2	--		64.77
Methylene chloride	ND	32.4	--	ND	113	--		64.77
3-Chloropropene	ND	13.0	--	ND	40.7	--		64.77
Carbon disulfide	ND	13.0	--	ND	40.5	--		64.77
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13.0	--	ND	99.6	--		64.77
trans-1,2-Dichloroethene	ND	13.0	--	ND	51.5	--		64.77
1,1-Dichloroethane	1770	13.0	--	7160	52.6	--		64.77
Methyl tert butyl ether	ND	13.0	--	ND	46.9	--		64.77
2-Butanone	ND	32.4	--	ND	95.6	--		64.77
cis-1,2-Dichloroethene	ND	13.0	--	ND	51.5	--		64.77

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-05 D
Client ID: SSSV25-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	32.4	--	ND	117	--		64.77
Chloroform	ND	13.0	--	ND	63.5	--		64.77
Tetrahydrofuran	ND	32.4	--	ND	95.6	--		64.77
1,2-Dichloroethane	32.2	13.0	--	130	52.6	--		64.77
n-Hexane	ND	13.0	--	ND	45.8	--		64.77
1,1,1-Trichloroethane	604	13.0	--	3300	70.9	--		64.77
Benzene	15.4	13.0	--	49.2	41.5	--		64.77
Carbon tetrachloride	ND	13.0	--	ND	81.8	--		64.77
Cyclohexane	ND	13.0	--	ND	44.7	--		64.77
1,2-Dichloropropane	ND	13.0	--	ND	60.1	--		64.77
Bromodichloromethane	ND	13.0	--	ND	87.1	--		64.77
Xylene (Total)	ND	13.0	--	ND	56.5	--		64.77
1,4-Dioxane	ND	13.0	--	ND	46.8	--		64.77
Trichloroethene	24.7	13.0	--	133	69.9	--		64.77
2,2,4-Trimethylpentane	ND	13.0	--	ND	60.7	--		64.77
Heptane	ND	13.0	--	ND	53.3	--		64.77
cis-1,3-Dichloropropene	ND	13.0	--	ND	59.0	--		64.77
4-Methyl-2-pentanone	ND	32.4	--	ND	133	--		64.77
trans-1,3-Dichloropropene	ND	13.0	--	ND	59.0	--		64.77
1,1,2-Trichloroethane	ND	13.0	--	ND	70.9	--		64.77
Toluene	ND	13.0	--	ND	49.0	--		64.77
1,2-Dichloroethene (total)	ND	13.0	--	ND	51.5	--		64.77
2-Hexanone	ND	13.0	--	ND	53.3	--		64.77
Dibromochloromethane	ND	13.0	--	ND	111	--		64.77
1,3-Dichloropropene, Total	ND	13.0	--	ND	59.0	--		64.77
1,2-Dibromoethane	ND	13.0	--	ND	99.9	--		64.77

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-05 D
Client ID: SSSV25-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:10
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	69.6	13.0	--	472	88.2	--		64.77
Chlorobenzene	ND	13.0	--	ND	59.9	--		64.77
Ethylbenzene	ND	13.0	--	ND	56.5	--		64.77
p/m-Xylene	ND	25.9	--	ND	112	--		64.77
Bromoform	ND	13.0	--	ND	134	--		64.77
Styrene	ND	13.0	--	ND	55.3	--		64.77
1,1,2,2-Tetrachloroethane	ND	13.0	--	ND	89.3	--		64.77
o-Xylene	ND	13.0	--	ND	56.5	--		64.77
4-Ethyltoluene	ND	13.0	--	ND	63.9	--		64.77
1,3,5-Trimethylbenzene	ND	13.0	--	ND	63.9	--		64.77
1,2,4-Trimethylbenzene	ND	13.0	--	ND	63.9	--		64.77
Benzyl chloride	ND	13.0	--	ND	67.3	--		64.77
1,3-Dichlorobenzene	ND	13.0	--	ND	78.2	--		64.77
1,4-Dichlorobenzene	ND	13.0	--	ND	78.2	--		64.77
1,2-Dichlorobenzene	ND	13.0	--	ND	78.2	--		64.77
1,2,4-Trichlorobenzene	ND	13.0	--	ND	96.5	--		64.77
Hexachlorobutadiene	ND	13.0	--	ND	139	--		64.77

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	99		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-06 D
Client ID: SSSV25-101719-A2
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 09:50
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/24/19 23:57
Analyst: TS

	ppbV			ug/m3				Dilution
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	12.7	--	ND	62.8	--		63.45
Chloromethane	ND	12.7	--	ND	26.2	--		63.45
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	12.7	--	ND	88.8	--		63.45
Vinyl chloride	ND	12.7	--	ND	32.5	--		63.45
1,3-Butadiene	ND	12.7	--	ND	28.1	--		63.45
Bromomethane	ND	12.7	--	ND	49.3	--		63.45
Chloroethane	13.4	12.7	--	35.4	33.5	--		63.45
Ethyl Alcohol	ND	317	--	ND	597	--		63.45
Vinyl bromide	ND	12.7	--	ND	55.5	--		63.45
Acetone	ND	63.4	--	ND	151	--		63.45
Trichlorofluoromethane	ND	12.7	--	ND	71.4	--		63.45
iso-Propyl Alcohol	ND	31.7	--	ND	77.9	--		63.45
1,1-Dichloroethene	5350	12.7	--	21200	50.4	--		63.45
tert-Butyl Alcohol	ND	31.7	--	ND	96.1	--		63.45
Methylene chloride	ND	31.7	--	ND	110	--		63.45
3-Chloropropene	ND	12.7	--	ND	39.8	--		63.45
Carbon disulfide	ND	12.7	--	ND	39.5	--		63.45
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12.7	--	ND	97.3	--		63.45
trans-1,2-Dichloroethene	ND	12.7	--	ND	50.4	--		63.45
1,1-Dichloroethane	1790	12.7	--	7240	51.4	--		63.45
Methyl tert butyl ether	ND	12.7	--	ND	45.8	--		63.45
2-Butanone	ND	31.7	--	ND	93.5	--		63.45
cis-1,2-Dichloroethene	ND	12.7	--	ND	50.4	--		63.45

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-06 D
Client ID: SSSV25-101719-A2
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 09:50
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	31.7	--	ND	114	--		63.45
Chloroform	ND	12.7	--	ND	62.0	--		63.45
Tetrahydrofuran	ND	31.7	--	ND	93.5	--		63.45
1,2-Dichloroethane	34.4	12.7	--	139	51.4	--		63.45
n-Hexane	ND	12.7	--	ND	44.8	--		63.45
1,1,1-Trichloroethane	640	12.7	--	3490	69.3	--		63.45
Benzene	15.9	12.7	--	50.8	40.6	--		63.45
Carbon tetrachloride	ND	12.7	--	ND	79.9	--		63.45
Cyclohexane	ND	12.7	--	ND	43.7	--		63.45
1,2-Dichloropropane	ND	12.7	--	ND	58.7	--		63.45
Bromodichloromethane	ND	12.7	--	ND	85.1	--		63.45
Xylene (Total)	ND	12.7	--	ND	55.2	--		63.45
1,4-Dioxane	ND	12.7	--	ND	45.8	--		63.45
Trichloroethene	26.8	12.7	--	144	68.3	--		63.45
2,2,4-Trimethylpentane	ND	12.7	--	ND	59.3	--		63.45
Heptane	ND	12.7	--	ND	52.0	--		63.45
cis-1,3-Dichloropropene	ND	12.7	--	ND	57.7	--		63.45
4-Methyl-2-pentanone	ND	31.7	--	ND	130	--		63.45
trans-1,3-Dichloropropene	ND	12.7	--	ND	57.7	--		63.45
1,1,2-Trichloroethane	ND	12.7	--	ND	69.3	--		63.45
Toluene	ND	12.7	--	ND	47.9	--		63.45
1,2-Dichloroethene (total)	ND	12.7	--	ND	50.4	--		63.45
2-Hexanone	ND	12.7	--	ND	52.0	--		63.45
1,3-Dichloropropene, Total	ND	12.7	--	ND	57.7	--		63.45
Dibromochloromethane	ND	12.7	--	ND	108	--		63.45
1,2-Dibromoethane	ND	12.7	--	ND	97.6	--		63.45

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-06 D
Client ID: SSSV25-101719-A2
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 09:50
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	75.0	12.7	--	509	86.1	--		63.45
Chlorobenzene	ND	12.7	--	ND	58.5	--		63.45
Ethylbenzene	ND	12.7	--	ND	55.2	--		63.45
p/m-Xylene	ND	25.4	--	ND	110	--		63.45
Bromoform	ND	12.7	--	ND	131	--		63.45
Styrene	ND	12.7	--	ND	54.1	--		63.45
1,1,2,2-Tetrachloroethane	ND	12.7	--	ND	87.2	--		63.45
o-Xylene	ND	12.7	--	ND	55.2	--		63.45
4-Ethyltoluene	ND	12.7	--	ND	62.4	--		63.45
1,3,5-Trimethylbenzene	ND	12.7	--	ND	62.4	--		63.45
1,2,4-Trimethylbenzene	ND	12.7	--	ND	62.4	--		63.45
Benzyl chloride	ND	12.7	--	ND	65.8	--		63.45
1,3-Dichlorobenzene	ND	12.7	--	ND	76.4	--		63.45
1,4-Dichlorobenzene	ND	12.7	--	ND	76.4	--		63.45
1,2-Dichlorobenzene	ND	12.7	--	ND	76.4	--		63.45
1,2,4-Trichlorobenzene	ND	12.7	--	ND	94.3	--		63.45
Hexachlorobutadiene	ND	12.7	--	ND	135	--		63.45

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-07 D
Client ID: SSSV25-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:37
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 00:33
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	294.	--	ND	1450	--		1471
Chloromethane	ND	294.	--	ND	607	--		1471
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	294.	--	ND	2050	--		1471
Vinyl chloride	ND	294.	--	ND	752	--		1471
1,3-Butadiene	ND	294.	--	ND	650	--		1471
Bromomethane	ND	294.	--	ND	1140	--		1471
Chloroethane	ND	294	--	ND	776	--		1471
Ethyl Alcohol	ND	7350	--	ND	13800	--		1471
Vinyl bromide	ND	294.	--	ND	1290	--		1471
Acetone	ND	1470	--	ND	3490	--		1471
Trichlorofluoromethane	ND	294.	--	ND	1650	--		1471
iso-Propyl Alcohol	ND	735.	--	ND	1810	--		1471
1,1-Dichloroethene	102000	294	--	404000	1170	--		1471
tert-Butyl Alcohol	ND	735.	--	ND	2230	--		1471
Methylene chloride	ND	735.	--	ND	2550	--		1471
3-Chloropropene	ND	294.	--	ND	920	--		1471
Carbon disulfide	ND	294.	--	ND	916	--		1471
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	294.	--	ND	2250	--		1471
trans-1,2-Dichloroethene	ND	294.	--	ND	1170	--		1471
1,1-Dichloroethane	13200	294	--	53400	1190	--		1471
Methyl tert butyl ether	ND	294.	--	ND	1060	--		1471
2-Butanone	ND	735.	--	ND	2170	--		1471
cis-1,2-Dichloroethene	ND	294	--	ND	1170	--		1471

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-07 D
Client ID: SSSV25-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:37
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	735.	--	ND	2650	--		1471
Chloroform	ND	294	--	ND	1440	--		1471
Tetrahydrofuran	ND	735.	--	ND	2170	--		1471
1,2-Dichloroethane	ND	294	--	ND	1190	--		1471
n-Hexane	ND	294.	--	ND	1040	--		1471
1,1,1-Trichloroethane	7410	294	--	40400	1600	--		1471
Benzene	ND	294	--	ND	939	--		1471
Carbon tetrachloride	ND	294.	--	ND	1850	--		1471
Cyclohexane	ND	294.	--	ND	1010	--		1471
1,2-Dichloropropane	ND	294.	--	ND	1360	--		1471
Bromodichloromethane	ND	294.	--	ND	1970	--		1471
Xylene (Total)	ND	294.	--	ND	1280	--		1471
1,4-Dioxane	ND	294.	--	ND	1060	--		1471
Trichloroethene	ND	294	--	ND	1580	--		1471
2,2,4-Trimethylpentane	ND	294.	--	ND	1370	--		1471
Heptane	ND	294.	--	ND	1200	--		1471
cis-1,3-Dichloropropene	ND	294.	--	ND	1330	--		1471
4-Methyl-2-pentanone	ND	735.	--	ND	3010	--		1471
trans-1,3-Dichloropropene	ND	294.	--	ND	1330	--		1471
1,1,2-Trichloroethane	ND	294.	--	ND	1600	--		1471
Toluene	ND	294.	--	ND	1110	--		1471
1,2-Dichloroethene (total)	ND	294.	--	ND	1170	--		1471
2-Hexanone	ND	294.	--	ND	1200	--		1471
1,3-Dichloropropene, Total	ND	294.	--	ND	1330	--		1471
Dibromochloromethane	ND	294.	--	ND	2500	--		1471
1,2-Dibromoethane	ND	294.	--	ND	2260	--		1471

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-07 D
Client ID: SSSV25-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 11:37
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	475	294	--	3220	1990	--		1471
Chlorobenzene	ND	294.	--	ND	1350	--		1471
Ethylbenzene	ND	294.	--	ND	1280	--		1471
p/m-Xylene	ND	588.	--	ND	2550	--		1471
Bromoform	ND	294.	--	ND	3040	--		1471
Styrene	ND	294.	--	ND	1250	--		1471
1,1,2,2-Tetrachloroethane	ND	294.	--	ND	2020	--		1471
o-Xylene	ND	294.	--	ND	1280	--		1471
4-Ethyltoluene	ND	294.	--	ND	1450	--		1471
1,3,5-Trimethylbenzene	ND	294.	--	ND	1450	--		1471
1,2,4-Trimethylbenzene	ND	294.	--	ND	1450	--		1471
Benzyl chloride	ND	294.	--	ND	1520	--		1471
1,3-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,4-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,2-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,2,4-Trichlorobenzene	ND	294.	--	ND	2180	--		1471
Hexachlorobutadiene	ND	294.	--	ND	3140	--		1471

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	99		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-08 D
Client ID: SSSV15-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:03
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 01:10
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	152.	--	ND	752	--		757.6
Chloromethane	ND	152.	--	ND	314	--		757.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	152.	--	ND	1060	--		757.6
Vinyl chloride	ND	152	--	ND	389	--		757.6
1,3-Butadiene	ND	152.	--	ND	336	--		757.6
Bromomethane	ND	152.	--	ND	590	--		757.6
Chloroethane	27200	152	--	71800	401	--		757.6
Ethyl Alcohol	ND	3790	--	ND	7140	--		757.6
Vinyl bromide	ND	152.	--	ND	665	--		757.6
Acetone	ND	758	--	ND	1800	--		757.6
Trichlorofluoromethane	ND	152.	--	ND	854	--		757.6
iso-Propyl Alcohol	ND	379.	--	ND	932	--		757.6
1,1-Dichloroethene	47700	152	--	189000	603	--		757.6
tert-Butyl Alcohol	ND	379.	--	ND	1150	--		757.6
Methylene chloride	ND	379	--	ND	1320	--		757.6
3-Chloropropene	ND	152.	--	ND	476	--		757.6
Carbon disulfide	ND	152.	--	ND	473	--		757.6
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	152.	--	ND	1170	--		757.6
trans-1,2-Dichloroethene	ND	152.	--	ND	603	--		757.6
1,1-Dichloroethane	63000	152	--	255000	615	--		757.6
Methyl tert butyl ether	ND	152.	--	ND	548	--		757.6
2-Butanone	ND	379.	--	ND	1120	--		757.6
cis-1,2-Dichloroethene	ND	152.	--	ND	603	--		757.6

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-08 D
Client ID: SSSV15-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:03
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	379.	--	ND	1370	--		757.6
Chloroform	ND	152	--	ND	742	--		757.6
Tetrahydrofuran	ND	379.	--	ND	1120	--		757.6
1,2-Dichloroethane	ND	152.	--	ND	615	--		757.6
n-Hexane	ND	152.	--	ND	536	--		757.6
1,1,1-Trichloroethane	14700	152	--	80200	829	--		757.6
Benzene	ND	152.	--	ND	486	--		757.6
Carbon tetrachloride	ND	152.	--	ND	956	--		757.6
Cyclohexane	ND	152.	--	ND	523	--		757.6
1,2-Dichloropropane	ND	152.	--	ND	702	--		757.6
Bromodichloromethane	ND	152.	--	ND	1020	--		757.6
Xylene (Total)	ND	152.	--	ND	660	--		757.6
1,4-Dioxane	ND	152.	--	ND	548	--		757.6
Trichloroethene	329	152	--	1770	817	--		757.6
2,2,4-Trimethylpentane	ND	152	--	ND	710	--		757.6
Heptane	ND	152.	--	ND	623	--		757.6
cis-1,3-Dichloropropene	ND	152.	--	ND	690	--		757.6
4-Methyl-2-pentanone	ND	379.	--	ND	1550	--		757.6
trans-1,3-Dichloropropene	ND	152.	--	ND	690	--		757.6
1,1,2-Trichloroethane	ND	152.	--	ND	829	--		757.6
Toluene	ND	152.	--	ND	573	--		757.6
1,2-Dichloroethene (total)	ND	152.	--	ND	603	--		757.6
2-Hexanone	ND	152.	--	ND	623	--		757.6
Dibromochloromethane	ND	152.	--	ND	1290	--		757.6
1,3-Dichloropropene, Total	ND	152.	--	ND	690	--		757.6
1,2-Dibromoethane	ND	152.	--	ND	1170	--		757.6

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-08 D
Client ID: SSSV15-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:03
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	558	152	--	3780	1030	--		757.6
Chlorobenzene	ND	152.	--	ND	700	--		757.6
Ethylbenzene	ND	152.	--	ND	660	--		757.6
p/m-Xylene	ND	303.	--	ND	1320	--		757.6
Bromoform	ND	152.	--	ND	1570	--		757.6
Styrene	ND	152.	--	ND	647	--		757.6
1,1,2,2-Tetrachloroethane	ND	152.	--	ND	1040	--		757.6
o-Xylene	ND	152.	--	ND	660	--		757.6
4-Ethyltoluene	ND	152.	--	ND	747	--		757.6
1,3,5-Trimethylbenzene	ND	152.	--	ND	747	--		757.6
1,2,4-Trimethylbenzene	ND	152.	--	ND	747	--		757.6
Benzyl chloride	ND	152.	--	ND	787	--		757.6
1,3-Dichlorobenzene	ND	152.	--	ND	914	--		757.6
1,4-Dichlorobenzene	ND	152.	--	ND	914	--		757.6
1,2-Dichlorobenzene	ND	152.	--	ND	914	--		757.6
1,2,4-Trichlorobenzene	ND	152.	--	ND	1130	--		757.6
Hexachlorobutadiene	ND	152.	--	ND	1620	--		757.6

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-09 D
Client ID: SSSV15-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:30
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 01:46
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	119.	--	ND	588	--		595.2
Chloromethane	ND	119.	--	ND	246	--		595.2
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	119.	--	ND	832	--		595.2
Vinyl chloride	ND	119	--	ND	304	--		595.2
1,3-Butadiene	ND	119.	--	ND	263	--		595.2
Bromomethane	ND	119.	--	ND	462	--		595.2
Chloroethane	8760	119	--	23100	314	--		595.2
Ethyl Alcohol	ND	2980	--	ND	5620	--		595.2
Vinyl bromide	ND	119.	--	ND	520	--		595.2
Acetone	ND	595	--	ND	1410	--		595.2
Trichlorofluoromethane	ND	119.	--	ND	669	--		595.2
iso-Propyl Alcohol	ND	298.	--	ND	733	--		595.2
1,1-Dichloroethene	46100	119	--	183000	472	--		595.2
tert-Butyl Alcohol	ND	298.	--	ND	903	--		595.2
Methylene chloride	ND	298	--	ND	1040	--		595.2
3-Chloropropene	ND	119.	--	ND	372	--		595.2
Carbon disulfide	ND	119.	--	ND	371	--		595.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	119.	--	ND	912	--		595.2
trans-1,2-Dichloroethene	ND	119.	--	ND	472	--		595.2
1,1-Dichloroethane	44700	119	--	181000	482	--		595.2
Methyl tert butyl ether	ND	119.	--	ND	429	--		595.2
2-Butanone	ND	298.	--	ND	879	--		595.2
cis-1,2-Dichloroethene	ND	119	--	ND	472	--		595.2

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-09 D
Client ID: SSSV15-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:30
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	298.	--	ND	1070	--		595.2
Chloroform	ND	119	--	ND	581	--		595.2
Tetrahydrofuran	ND	298.	--	ND	879	--		595.2
1,2-Dichloroethane	ND	119	--	ND	482	--		595.2
n-Hexane	ND	119.	--	ND	419	--		595.2
1,1,1-Trichloroethane	13200	119	--	72000	649	--		595.2
Benzene	ND	119	--	ND	380	--		595.2
Carbon tetrachloride	ND	119.	--	ND	749	--		595.2
Cyclohexane	ND	119.	--	ND	410	--		595.2
1,2-Dichloropropane	ND	119.	--	ND	550	--		595.2
Xylene (Total)	ND	119.	--	ND	517	--		595.2
Bromodichloromethane	ND	119.	--	ND	797	--		595.2
1,4-Dioxane	ND	119.	--	ND	429	--		595.2
Trichloroethene	337	119	--	1810	640	--		595.2
2,2,4-Trimethylpentane	ND	119.	--	ND	556	--		595.2
Heptane	ND	119.	--	ND	488	--		595.2
cis-1,3-Dichloropropene	ND	119.	--	ND	540	--		595.2
4-Methyl-2-pentanone	ND	298.	--	ND	1220	--		595.2
trans-1,3-Dichloropropene	ND	119.	--	ND	540	--		595.2
1,1,2-Trichloroethane	ND	119	--	ND	649	--		595.2
Toluene	ND	119.	--	ND	448	--		595.2
1,2-Dichloroethene (total)	ND	119.	--	ND	472	--		595.2
2-Hexanone	ND	119.	--	ND	488	--		595.2
1,3-Dichloropropene, Total	ND	119.	--	ND	540	--		595.2
Dibromochloromethane	ND	119.	--	ND	1010	--		595.2
1,2-Dibromoethane	ND	119.	--	ND	915	--		595.2

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-09 D
Client ID: SSSV15-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:30
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	640	119	--	4340	807	--		595.2
Chlorobenzene	ND	119.	--	ND	548	--		595.2
Ethylbenzene	ND	119.	--	ND	517	--		595.2
p/m-Xylene	ND	238.	--	ND	1030	--		595.2
Bromoform	ND	119.	--	ND	1230	--		595.2
Styrene	ND	119.	--	ND	507	--		595.2
1,1,2,2-Tetrachloroethane	ND	119.	--	ND	817	--		595.2
o-Xylene	ND	119.	--	ND	517	--		595.2
4-Ethyltoluene	ND	119.	--	ND	585	--		595.2
1,3,5-Trimethylbenzene	ND	119.	--	ND	585	--		595.2
1,2,4-Trimethylbenzene	ND	119.	--	ND	585	--		595.2
Benzyl chloride	ND	119.	--	ND	616	--		595.2
1,3-Dichlorobenzene	ND	119.	--	ND	715	--		595.2
1,4-Dichlorobenzene	ND	119.	--	ND	715	--		595.2
1,2-Dichlorobenzene	ND	119.	--	ND	715	--		595.2
1,2,4-Trichlorobenzene	ND	119.	--	ND	883	--		595.2
Hexachlorobutadiene	ND	119.	--	ND	1270	--		595.2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	98		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-10 D
Client ID: SSSV15-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:48
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 02:22
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	20.6	--	ND	102	--		102.9
Chloromethane	ND	20.6	--	ND	42.5	--		102.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	20.6	--	ND	144	--		102.9
Vinyl chloride	ND	20.6	--	ND	52.7	--		102.9
1,3-Butadiene	ND	20.6	--	ND	45.6	--		102.9
Bromomethane	ND	20.6	--	ND	80.0	--		102.9
Chloroethane	1250	20.6	--	3300	54.4	--		102.9
Ethyl Alcohol	ND	514	--	ND	969	--		102.9
Vinyl bromide	ND	20.6	--	ND	90.1	--		102.9
Acetone	ND	103	--	ND	245	--		102.9
Trichlorofluoromethane	ND	20.6	--	ND	116	--		102.9
iso-Propyl Alcohol	ND	51.4	--	ND	126	--		102.9
1,1-Dichloroethene	6070	20.6	--	24100	81.7	--		102.9
tert-Butyl Alcohol	ND	51.4	--	ND	156	--		102.9
Methylene chloride	ND	51.4	--	ND	179	--		102.9
3-Chloropropene	ND	20.6	--	ND	64.5	--		102.9
Carbon disulfide	ND	20.6	--	ND	64.2	--		102.9
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20.6	--	ND	158	--		102.9
trans-1,2-Dichloroethene	ND	20.6	--	ND	81.7	--		102.9
1,1-Dichloroethane	10100	20.6	--	40900	83.4	--		102.9
Methyl tert butyl ether	ND	20.6	--	ND	74.3	--		102.9
2-Butanone	ND	51.4	--	ND	152	--		102.9
cis-1,2-Dichloroethene	ND	20.6	--	ND	81.7	--		102.9

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-10 D
Client ID: SSSV15-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:48
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	51.4	--	ND	185	--		102.9
Chloroform	ND	20.6	--	ND	101	--		102.9
Tetrahydrofuran	ND	51.4	--	ND	152	--		102.9
1,2-Dichloroethane	ND	20.6	--	ND	83.4	--		102.9
n-Hexane	ND	20.6	--	ND	72.6	--		102.9
1,1,1-Trichloroethane	2090	20.6	--	11400	112	--		102.9
Benzene	ND	20.6	--	ND	65.8	--		102.9
Carbon tetrachloride	ND	20.6	--	ND	130	--		102.9
Cyclohexane	ND	20.6	--	ND	70.9	--		102.9
1,2-Dichloropropane	ND	20.6	--	ND	95.2	--		102.9
Bromodichloromethane	ND	20.6	--	ND	138	--		102.9
Xylene (Total)	ND	20.6	--	ND	89.5	--		102.9
1,4-Dioxane	ND	20.6	--	ND	74.2	--		102.9
Trichloroethene	88.7	20.6	--	477	111	--		102.9
2,2,4-Trimethylpentane	ND	20.6	--	ND	96.2	--		102.9
Heptane	ND	20.6	--	ND	84.4	--		102.9
cis-1,3-Dichloropropene	ND	20.6	--	ND	93.5	--		102.9
4-Methyl-2-pentanone	ND	51.4	--	ND	211	--		102.9
trans-1,3-Dichloropropene	ND	20.6	--	ND	93.5	--		102.9
1,1,2-Trichloroethane	ND	20.6	--	ND	112	--		102.9
Toluene	ND	20.6	--	ND	77.6	--		102.9
1,2-Dichloroethene (total)	ND	20.6	--	ND	81.7	--		102.9
2-Hexanone	ND	20.6	--	ND	84.4	--		102.9
Dibromochloromethane	ND	20.6	--	ND	176	--		102.9
1,3-Dichloropropene, Total	ND	20.6	--	ND	93.5	--		102.9
1,2-Dibromoethane	ND	20.6	--	ND	158	--		102.9

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-10 D
Client ID: SSSV15-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 12:48
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	92.5	20.6	--	627	140	--		102.9
Chlorobenzene	ND	20.6	--	ND	94.9	--		102.9
Ethylbenzene	ND	20.6	--	ND	89.5	--		102.9
p/m-Xylene	ND	41.2	--	ND	179	--		102.9
Bromoform	ND	20.6	--	ND	213	--		102.9
Styrene	ND	20.6	--	ND	87.7	--		102.9
1,1,2,2-Tetrachloroethane	ND	20.6	--	ND	141	--		102.9
o-Xylene	ND	20.6	--	ND	89.5	--		102.9
4-Ethyltoluene	ND	20.6	--	ND	101	--		102.9
1,3,5-Trimethylbenzene	ND	20.6	--	ND	101	--		102.9
1,2,4-Trimethylbenzene	ND	20.6	--	ND	101	--		102.9
Benzyl chloride	ND	20.6	--	ND	107	--		102.9
1,3-Dichlorobenzene	ND	20.6	--	ND	124	--		102.9
1,4-Dichlorobenzene	ND	20.6	--	ND	124	--		102.9
1,2-Dichlorobenzene	ND	20.6	--	ND	124	--		102.9
1,2,4-Trichlorobenzene	ND	20.6	--	ND	153	--		102.9
Hexachlorobutadiene	ND	20.6	--	ND	220	--		102.9

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-11 D
Client ID: SSSV24-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:14
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 03:01
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	6.54	--	ND	32.3	--		32.68
Chloromethane	ND	6.54	--	ND	13.5	--		32.68
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	6.54	--	ND	45.7	--		32.68
Vinyl chloride	ND	6.54	--	ND	16.7	--		32.68
1,3-Butadiene	ND	6.54	--	ND	14.5	--		32.68
Bromomethane	ND	6.54	--	ND	25.4	--		32.68
Chloroethane	7.32	6.54	--	19.3	17.3	--		32.68
Ethyl Alcohol	ND	163	--	ND	307	--		32.68
Vinyl bromide	ND	6.54	--	ND	28.6	--		32.68
Acetone	34.3	32.7	--	81.5	77.7	--		32.68
Trichlorofluoromethane	ND	6.54	--	ND	36.8	--		32.68
iso-Propyl Alcohol	ND	16.3	--	ND	40.1	--		32.68
1,1-Dichloroethene	2220	6.54	--	8800	25.9	--		32.68
tert-Butyl Alcohol	ND	16.3	--	ND	49.4	--		32.68
Methylene chloride	ND	16.3	--	ND	56.6	--		32.68
3-Chloropropene	ND	6.54	--	ND	20.5	--		32.68
Carbon disulfide	ND	6.54	--	ND	20.4	--		32.68
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	6.54	--	ND	50.1	--		32.68
trans-1,2-Dichloroethene	ND	6.54	--	ND	25.9	--		32.68
1,1-Dichloroethane	1970	6.54	--	7970	26.5	--		32.68
Methyl tert butyl ether	ND	6.54	--	ND	23.6	--		32.68
2-Butanone	ND	16.3	--	ND	48.1	--		32.68
cis-1,2-Dichloroethene	16.7	6.54	--	66.2	25.9	--		32.68

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-11 D
Client ID: SSSV24-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:14
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	16.3	--	ND	58.7	--		32.68
Chloroform	ND	6.54	--	ND	31.9	--		32.68
Tetrahydrofuran	ND	16.3	--	ND	48.1	--		32.68
1,2-Dichloroethane	7.61	6.54	--	30.8	26.5	--		32.68
n-Hexane	ND	6.54	--	ND	23.0	--		32.68
1,1,1-Trichloroethane	38.9	6.54	--	212	35.7	--		32.68
Benzene	ND	6.54	--	ND	20.9	--		32.68
Carbon tetrachloride	ND	6.54	--	ND	41.1	--		32.68
Cyclohexane	ND	6.54	--	ND	22.5	--		32.68
1,2-Dichloropropane	ND	6.54	--	ND	30.2	--		32.68
Bromodichloromethane	ND	6.54	--	ND	43.8	--		32.68
Xylene (Total)	ND	6.54	--	ND	28.4	--		32.68
1,4-Dioxane	19.6	6.54	--	70.6	23.6	--		32.68
Trichloroethene	ND	6.54	--	ND	35.1	--		32.68
2,2,4-Trimethylpentane	ND	6.54	--	ND	30.5	--		32.68
Heptane	ND	6.54	--	ND	26.8	--		32.68
cis-1,3-Dichloropropene	ND	6.54	--	ND	29.7	--		32.68
4-Methyl-2-pentanone	ND	16.3	--	ND	66.8	--		32.68
trans-1,3-Dichloropropene	ND	6.54	--	ND	29.7	--		32.68
1,1,2-Trichloroethane	ND	6.54	--	ND	35.7	--		32.68
Toluene	ND	6.54	--	ND	24.6	--		32.68
1,2-Dichloroethene (total)	16.7	6.54	--	66.2	25.9	--		32.68
2-Hexanone	ND	6.54	--	ND	26.8	--		32.68
Dibromochloromethane	ND	6.54	--	ND	55.7	--		32.68
1,3-Dichloropropene, Total	ND	6.54	--	ND	29.7	--		32.68
1,2-Dibromoethane	ND	6.54	--	ND	50.3	--		32.68

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-11 D
Client ID: SSSV24-101719-A
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:14
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	ND	6.54	--	ND	44.3	--		32.68
Chlorobenzene	ND	6.54	--	ND	30.1	--		32.68
Ethylbenzene	ND	6.54	--	ND	28.4	--		32.68
p/m-Xylene	ND	13.1	--	ND	56.9	--		32.68
Bromoform	ND	6.54	--	ND	67.6	--		32.68
Styrene	ND	6.54	--	ND	27.8	--		32.68
1,1,2,2-Tetrachloroethane	ND	6.54	--	ND	44.9	--		32.68
o-Xylene	ND	6.54	--	ND	28.4	--		32.68
4-Ethyltoluene	ND	6.54	--	ND	32.2	--		32.68
1,3,5-Trimethylbenzene	ND	6.54	--	ND	32.2	--		32.68
1,2,4-Trimethylbenzene	ND	6.54	--	ND	32.2	--		32.68
Benzyl chloride	ND	6.54	--	ND	33.9	--		32.68
1,3-Dichlorobenzene	ND	6.54	--	ND	39.3	--		32.68
1,4-Dichlorobenzene	ND	6.54	--	ND	39.3	--		32.68
1,2-Dichlorobenzene	ND	6.54	--	ND	39.3	--		32.68
1,2,4-Trichlorobenzene	ND	6.54	--	ND	48.5	--		32.68
Hexachlorobutadiene	ND	6.54	--	ND	69.8	--		32.68

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	99		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-12 D
Client ID: SSSV24-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 03:38
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	294.	--	ND	1450	--		1471
Chloromethane	ND	294.	--	ND	607	--		1471
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	294.	--	ND	2050	--		1471
Vinyl chloride	ND	294.	--	ND	752	--		1471
1,3-Butadiene	ND	294.	--	ND	650	--		1471
Bromomethane	ND	294.	--	ND	1140	--		1471
Chloroethane	ND	294.	--	ND	776	--		1471
Ethyl Alcohol	ND	7350	--	ND	13800	--		1471
Vinyl bromide	ND	294.	--	ND	1290	--		1471
Acetone	ND	1470	--	ND	3490	--		1471
Trichlorofluoromethane	ND	294.	--	ND	1650	--		1471
iso-Propyl Alcohol	ND	735.	--	ND	1810	--		1471
1,1-Dichloroethene	112000	294	--	444000	1170	--		1471
tert-Butyl Alcohol	ND	735.	--	ND	2230	--		1471
Methylene chloride	ND	735	--	ND	2550	--		1471
3-Chloropropene	ND	294.	--	ND	920	--		1471
Carbon disulfide	ND	294.	--	ND	916	--		1471
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	294.	--	ND	2250	--		1471
trans-1,2-Dichloroethene	ND	294.	--	ND	1170	--		1471
1,1-Dichloroethane	52800	294	--	214000	1190	--		1471
Methyl tert butyl ether	ND	294.	--	ND	1060	--		1471
2-Butanone	ND	735.	--	ND	2170	--		1471
cis-1,2-Dichloroethene	450	294	--	1780	1170	--		1471

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-12 D
Client ID: SSSV24-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	735.	--	ND	2650	--		1471
Chloroform	ND	294.	--	ND	1440	--		1471
Tetrahydrofuran	ND	735.	--	ND	2170	--		1471
1,2-Dichloroethane	294	294	--	1190	1190	--		1471
n-Hexane	ND	294.	--	ND	1040	--		1471
1,1,1-Trichloroethane	1930	294	--	10500	1600	--		1471
Benzene	423	294	--	1350	939	--		1471
Carbon tetrachloride	ND	294.	--	ND	1850	--		1471
Cyclohexane	ND	294.	--	ND	1010	--		1471
1,2-Dichloropropane	ND	294.	--	ND	1360	--		1471
Xylene (Total)	ND	294.	--	ND	1280	--		1471
Bromodichloromethane	ND	294.	--	ND	1970	--		1471
1,4-Dioxane	ND	294.	--	ND	1060	--		1471
Trichloroethene	ND	294	--	ND	1580	--		1471
2,2,4-Trimethylpentane	ND	294	--	ND	1370	--		1471
Heptane	ND	294.	--	ND	1200	--		1471
cis-1,3-Dichloropropene	ND	294.	--	ND	1330	--		1471
4-Methyl-2-pentanone	ND	735.	--	ND	3010	--		1471
trans-1,3-Dichloropropene	ND	294.	--	ND	1330	--		1471
1,1,2-Trichloroethane	ND	294.	--	ND	1600	--		1471
Toluene	ND	294.	--	ND	1110	--		1471
1,2-Dichloroethene (total)	450	294	--	1780	1170	--		1471
2-Hexanone	ND	294.	--	ND	1200	--		1471
1,3-Dichloropropene, Total	ND	294.	--	ND	1330	--		1471
Dibromochloromethane	ND	294.	--	ND	2500	--		1471
1,2-Dibromoethane	ND	294.	--	ND	2260	--		1471

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-12 D
Client ID: SSSV24-101719-B
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	ND	294	--	ND	1990	--		1471
Chlorobenzene	ND	294.	--	ND	1350	--		1471
Ethylbenzene	ND	294.	--	ND	1280	--		1471
p/m-Xylene	ND	588.	--	ND	2550	--		1471
Bromoform	ND	294.	--	ND	3040	--		1471
Styrene	ND	294.	--	ND	1250	--		1471
1,1,2,2-Tetrachloroethane	ND	294.	--	ND	2020	--		1471
o-Xylene	ND	294.	--	ND	1280	--		1471
4-Ethyltoluene	ND	294.	--	ND	1450	--		1471
1,3,5-Trimethylbenzene	ND	294.	--	ND	1450	--		1471
1,2,4-Trimethylbenzene	ND	294.	--	ND	1450	--		1471
Benzyl chloride	ND	294.	--	ND	1520	--		1471
1,3-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,4-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,2-Dichlorobenzene	ND	294.	--	ND	1770	--		1471
1,2,4-Trichlorobenzene	ND	294.	--	ND	2180	--		1471
Hexachlorobutadiene	ND	294.	--	ND	3140	--		1471

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	98		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-13 D
Client ID: SSSV24-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/25/19 04:14
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	417.	--	ND	2060	--		2083
Chloromethane	ND	417.	--	ND	861	--		2083
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	417.	--	ND	2910	--		2083
Vinyl chloride	ND	417	--	ND	1070	--		2083
1,3-Butadiene	ND	417.	--	ND	923	--		2083
Bromomethane	ND	417.	--	ND	1620	--		2083
Chloroethane	ND	417.	--	ND	1100	--		2083
Ethyl Alcohol	ND	10400	--	ND	19600	--		2083
Vinyl bromide	ND	417.	--	ND	1820	--		2083
Acetone	ND	2080	--	ND	4940	--		2083
Trichlorofluoromethane	ND	417.	--	ND	2340	--		2083
iso-Propyl Alcohol	ND	1040	--	ND	2560	--		2083
1,1-Dichloroethene	174000	417	--	690000	1650	--		2083
tert-Butyl Alcohol	ND	1040	--	ND	3150	--		2083
Methylene chloride	ND	1040	--	ND	3610	--		2083
3-Chloropropene	ND	417.	--	ND	1310	--		2083
Carbon disulfide	ND	417.	--	ND	1300	--		2083
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	417.	--	ND	3200	--		2083
trans-1,2-Dichloroethene	ND	417.	--	ND	1650	--		2083
1,1-Dichloroethane	94600	417	--	383000	1690	--		2083
Methyl tert butyl ether	ND	417.	--	ND	1500	--		2083
2-Butanone	ND	1040	--	ND	3070	--		2083
cis-1,2-Dichloroethene	1240	417	--	4920	1650	--		2083

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-13 D
Client ID: SSSV24-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	1040	--	ND	3750	--		2083
Chloroform	ND	417.	--	ND	2040	--		2083
Tetrahydrofuran	ND	1040	--	ND	3070	--		2083
1,2-Dichloroethane	1270	417	--	5140	1690	--		2083
n-Hexane	ND	417.	--	ND	1470	--		2083
1,1,1-Trichloroethane	1450	417	--	7910	2280	--		2083
Benzene	879	417	--	2810	1330	--		2083
Carbon tetrachloride	ND	417.	--	ND	2620	--		2083
Cyclohexane	ND	417.	--	ND	1440	--		2083
1,2-Dichloropropane	ND	417.	--	ND	1930	--		2083
Xylene (Total)	ND	417.	--	ND	1810	--		2083
Bromodichloromethane	ND	417.	--	ND	2790	--		2083
1,4-Dioxane	ND	417.	--	ND	1500	--		2083
Trichloroethene	ND	417	--	ND	2240	--		2083
2,2,4-Trimethylpentane	ND	417.	--	ND	1950	--		2083
Heptane	ND	417.	--	ND	1710	--		2083
cis-1,3-Dichloropropene	ND	417.	--	ND	1890	--		2083
4-Methyl-2-pentanone	ND	1040	--	ND	4260	--		2083
trans-1,3-Dichloropropene	ND	417.	--	ND	1890	--		2083
1,1,2-Trichloroethane	ND	417.	--	ND	2280	--		2083
Toluene	ND	417.	--	ND	1570	--		2083
1,2-Dichloroethene (total)	1240	417	--	4920	1650	--		2083
2-Hexanone	ND	417.	--	ND	1710	--		2083
Dibromochloromethane	ND	417.	--	ND	3550	--		2083
1,3-Dichloropropene, Total	ND	417.	--	ND	1890	--		2083
1,2-Dibromoethane	ND	417.	--	ND	3200	--		2083

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1949041-13 D
Client ID: SSSV24-101719-C
Sample Location: SYRACUSE, NY

Date Collected: 10/17/19 13:12
Date Received: 10/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	ND	417	--	ND	2830	--		2083
Chlorobenzene	ND	417.	--	ND	1920	--		2083
Ethylbenzene	ND	417.	--	ND	1810	--		2083
p/m-Xylene	ND	833.	--	ND	3620	--		2083
Bromoform	ND	417.	--	ND	4310	--		2083
Styrene	ND	417.	--	ND	1780	--		2083
1,1,2,2-Tetrachloroethane	ND	417.	--	ND	2860	--		2083
o-Xylene	ND	417.	--	ND	1810	--		2083
4-Ethyltoluene	ND	417.	--	ND	2050	--		2083
1,3,5-Trimethylbenzene	ND	417.	--	ND	2050	--		2083
1,2,4-Trimethylbenzene	ND	417.	--	ND	2050	--		2083
Benzyl chloride	ND	417.	--	ND	2160	--		2083
1,3-Dichlorobenzene	ND	417.	--	ND	2510	--		2083
1,4-Dichlorobenzene	ND	417.	--	ND	2510	--		2083
1,2-Dichlorobenzene	ND	417.	--	ND	2510	--		2083
1,2,4-Trichlorobenzene	ND	417.	--	ND	3100	--		2083
Hexachlorobutadiene	ND	417.	--	ND	4450	--		2083

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified
Lab Number: L1949041
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/24/19 15:56

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-13 Batch: WG1300303-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: LOCKHEED MARTIN
Project Number: Not Specified
Lab Number: L1949041
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/24/19 15:56

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-13 Batch: WG1300303-4								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1

Project Name: LOCKHEED MARTIN
Project Number: Not Specified
Lab Number: L1949041
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/24/19 15:56

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-13 Batch: WG1300303-4								
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1

Project Name: LOCKHEED MARTIN
Project Number: Not Specified
Lab Number: L1949041
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/24/19 15:56

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-13 Batch: WG1300303-4								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1

Project Name: LOCKHEED MARTIN
Project Number: Not Specified
Lab Number: L1949041
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/24/19 15:56

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-13 Batch: WG1300303-4								
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: Not Specified

Lab Number: L1949041

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 Batch: WG1300303-3								
Chlorodifluoromethane	82		-		70-130	-		
Propylene	115		-		70-130	-		
Propane	87		-		70-130	-		
Dichlorodifluoromethane	85		-		70-130	-		
Chloromethane	97		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	96		-		70-130	-		
Methanol	78		-		70-130	-		
Vinyl chloride	109		-		70-130	-		
1,3-Butadiene	100		-		70-130	-		
Butane	105		-		70-130	-		
Bromomethane	107		-		70-130	-		
Chloroethane	114		-		70-130	-		
Ethyl Alcohol	97		-		40-160	-		
Dichlorofluoromethane	99		-		70-130	-		
Vinyl bromide	101		-		70-130	-		
Acrolein	90		-		70-130	-		
Acetone	94		-		40-160	-		
Acetonitrile	108		-		70-130	-		
Trichlorofluoromethane	87		-		70-130	-		
iso-Propyl Alcohol	98		-		40-160	-		
Acrylonitrile	90		-		70-130	-		
Pentane	90		-		70-130	-		
Ethyl ether	72		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 Batch: WG1300303-3								
1,1-Dichloroethene	103		-		70-130	-		
tert-Butyl Alcohol	96		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	122		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	104		-		70-130	-		
trans-1,2-Dichloroethene	95		-		70-130	-		
1,1-Dichloroethane	112		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
Vinyl acetate	118		-		70-130	-		
2-Butanone	110		-		70-130	-		
cis-1,2-Dichloroethene	114		-		70-130	-		
Ethyl Acetate	126		-		70-130	-		
Chloroform	102		-		70-130	-		
Tetrahydrofuran	113		-		70-130	-		
2,2-Dichloropropane	83		-		70-130	-		
1,2-Dichloroethane	99		-		70-130	-		
n-Hexane	106		-		70-130	-		
Isopropyl Ether	94		-		70-130	-		
Ethyl-Tert-Butyl-Ether	94		-		70-130	-		
1,2-Dichloroethene (total)	105		-			-		
1,2-Dichloroethene (total)	105		-			-		
1,1,1-Trichloroethane	84		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: Not Specified

Lab Number: L1949041

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 Batch: WG1300303-3								
1,1-Dichloropropene	87		-		70-130	-		
Benzene	91		-		70-130	-		
Carbon tetrachloride	95		-		70-130	-		
Cyclohexane	105		-		70-130	-		
Tertiary-Amyl Methyl Ether	83		-		70-130	-		
Dibromomethane	94		-		70-130	-		
1,2-Dichloropropane	109		-		70-130	-		
Bromodichloromethane	98		-		70-130	-		
1,4-Dioxane	110		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	106		-		70-130	-		
Methyl Methacrylate	85		-		40-160	-		
Heptane	103		-		70-130	-		
cis-1,3-Dichloropropene	97		-		70-130	-		
4-Methyl-2-pentanone	109		-		70-130	-		
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	102		-		70-130	-		
Toluene	102		-		70-130	-		
1,3-Dichloropropane	86		-		70-130	-		
2-Hexanone	123		-		70-130	-		
Dibromochloromethane	109		-		70-130	-		
1,2-Dibromoethane	97		-		70-130	-		
Butyl Acetate	101		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 Batch: WG1300303-3								
Octane	93		-		70-130	-		
Tetrachloroethene	98		-		70-130	-		
1,1,1,2-Tetrachloroethane	94		-		70-130	-		
Chlorobenzene	98		-		70-130	-		
Ethylbenzene	104		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	110		-		70-130	-		
Styrene	97		-		70-130	-		
1,1,2,2-Tetrachloroethane	105		-		70-130	-		
o-Xylene	104		-		70-130	-		
1,2,3-Trichloropropane	87		-		70-130	-		
Nonane (C9)	94		-		70-130	-		
Isopropylbenzene	92		-		70-130	-		
Bromobenzene	91		-		70-130	-		
o-Chlorotoluene	93		-		70-130	-		
n-Propylbenzene	93		-		70-130	-		
p-Chlorotoluene	93		-		70-130	-		
4-Ethyltoluene	95		-		70-130	-		
1,3,5-Trimethylbenzene	97		-		70-130	-		
tert-Butylbenzene	96		-		70-130	-		
1,2,4-Trimethylbenzene	99		-		70-130	-		
Decane (C10)	104		-		70-130	-		
Benzyl chloride	118		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 Batch: WG1300303-3								
1,3-Dichlorobenzene	98		-		70-130	-		
1,4-Dichlorobenzene	100		-		70-130	-		
sec-Butylbenzene	90		-		70-130	-		
p-Isopropyltoluene	89		-		70-130	-		
1,2-Dichlorobenzene	98		-		70-130	-		
n-Butylbenzene	104		-		70-130	-		
1,2-Dibromo-3-chloropropane	94		-		70-130	-		
Undecane	110		-		70-130	-		
Dodecane (C12)	119		-		70-130	-		
1,2,4-Trichlorobenzene	116		-		70-130	-		
Naphthalene	102		-		70-130	-		
1,2,3-Trichlorobenzene	102		-		70-130	-		
Hexachlorobutadiene	100		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 QC Batch ID: WG1300303-5 QC Sample: L1949041-05 Client ID: SSSV25-101719-A						
Dichlorodifluoromethane	ND	ND	ppbV	NC		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	13.0	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	5200	5090	ppbV	2		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	1770	1740	ppbV	2		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 QC Batch ID: WG1300303-5 QC Sample: L1949041-05 Client ID: SSSV25-101719-A						
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	32.2	31.5	ppbV	2		25
n-Hexane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	604	597	ppbV	1		25
Benzene	15.4	15.4	ppbV	0		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Xylene (Total)	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	24.7	24.7	ppbV	0		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 QC Batch ID: WG1300303-5 QC Sample: L1949041-05 Client ID: SSSV25-101719-A						
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	ND	ND	ppbV	NC		25
1,2-Dichloroethene (total)	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
1,3-Dichloropropene, Total	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	69.6	70.0	ppbV	1		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-13 QC Batch ID: WG1300303-5 QC Sample: L1949041-05 Client ID: SSSV25-101719-A						
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: LOCKHEED MARTIN

Lab Number: L1949041

Project Number:

Report Date: 10/25/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1949041-01	SSSV-06-101719-A	01396	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	39.1	2
L1949041-01	SSSV-06-101719-A	2816	6.0L Can	10/16/19	304810	L1946760-06	Pass	-28.9	-7.3	-	-	-	-
L1949041-02	SSSV-06-101719-B	0944	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	43.3	8
L1949041-02	SSSV-06-101719-B	2908	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.1	-4.2	-	-	-	-
L1949041-03	SSSV06-101719-C	01014	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	38.1	5
L1949041-03	SSSV06-101719-C	1591	6.0L Can	10/16/19	304810	L1947061-01	Pass	-29.1	-10.3	-	-	-	-
L1949041-04	SSSV25-101719-B	0365	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	43.6	9
L1949041-04	SSSV25-101719-B	2894	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.1	-4.9	-	-	-	-
L1949041-05	SSSV25-101719-A	01013	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	41.2	3
L1949041-05	SSSV25-101719-A	2917	6.0L Can	10/16/19	304810	L1947061-01	Pass	-29.1	-6.5	-	-	-	-
L1949041-06	SSSV25-101719-A2	0396	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	61	42
L1949041-06	SSSV25-101719-A2	934	6.0L Can	10/16/19	304810	L1947061-01	Pass	-29.1	0.0	-	-	-	-
L1949041-07	SSSV25-101719-C	0714	Flow 3	10/16/19	304810		-	-	-	Pass	40.0	2.6	176
L1949041-07	SSSV25-101719-C	2989	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.0	-13.5	-	-	-	-
L1949041-08	SSSV15-101719-C	0352	Flow 3	10/16/19	304810		-	-	-	Pass	40.0	73	58

Project Name: LOCKHEED MARTIN

Lab Number: L1949041

Project Number:

Report Date: 10/25/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1949041-08	SSSV15-101719-C	1629	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.1	-4.9	-	-	-	-
L1949041-09	SSSV15-101719-B	0765	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	55.7	33
L1949041-09	SSSV15-101719-B	2884	6.0L Can	10/16/19	304810	L1946760-06	Pass	-29.2	-3.1	-	-	-	-
L1949041-10	SSSV15-101719-A	0444	Flow 5	10/16/19	304810		-	-	-	Pass	40.0	44.1	10
L1949041-10	SSSV15-101719-A	2803	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.5	-4.9	-	-	-	-
L1949041-11	SSSV24-101719-A	0954	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	43.7	9
L1949041-11	SSSV24-101719-A	1652	6.0L Can	10/16/19	304810	L1946760-06	Pass	-29.5	-4.8	-	-	-	-
L1949041-12	SSSV24-101719-B	01082	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	41.7	4
L1949041-12	SSSV24-101719-B	1556	6.0L Can	10/16/19	304810	L1947061-03	Pass	-29.1	-6.1	-	-	-	-
L1949041-13	SSSV24-101719-C	01007	Flow 2	10/16/19	304810		-	-	-	Pass	40.0	49.0	20
L1949041-13	SSSV24-101719-C	2951	6.0L Can	10/16/19	304810	L1946760-06	Pass	-29.0	-9.0	-	-	-	-
L1949041-14	UNUSED CAN #1050	0109	Flow 4	10/16/19	304810		-	-	-	Pass	40.0	44.9	12
L1949041-14	UNUSED CAN #1050	1050	6.0L Can	10/16/19	304810	L1947061-01	Pass	-29.1	-29.3	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/09/19 18:24
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.0	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/09/19 18:24
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1946760
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1946760-06
Client ID: CAN 986 SHELF 35
Sample Location:

Date Collected: 10/08/19 09:00
Date Received: 10/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	101		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/09/19 21:44
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	102		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/09/19 21:44
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-01
Client ID: CAN 2523 SHELF 44
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	104		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/09/19 23:04
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	103		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/09/19 23:04
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1947061

Project Number: CANISTER QC BAT **Report Date:** 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1947061
Report Date: 10/25/19

Air Canister Certification Results

Lab ID: L1947061-03
Client ID: CAN 1563 SHELF 57
Sample Location:

Date Collected: 10/08/19 16:00
Date Received: 10/09/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	104		60-140

Project Name: LOCKHEED MARTIN
Project Number: Not Specified

Lab Number: L1949041
Report Date: 10/25/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1949041-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-03A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-04A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-05A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-06A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-07A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-08A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-09A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-10A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-11A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-12A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-13A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1949041-14A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	LOCKHEED MARTIN	**Lab Number:**	L1949041
Project Number:	Not Specified	**Report Date:**	10/25/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report

Project Name:	LOCKHEED MARTIN	**Lab Number:**	L1949041
Project Number:	Not Specified	**Report Date:**	10/25/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/18/19

ALPHA Job #: L494 9041

Client Information

Client: O'Brien + Gere
Address: 7600 Morgan Rd
Liverpool NY 13090
Phone: 315-956-6674
Fax:
Email: eric.alongi@ramboll.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lockheed Martin
Project Location: Syracuse NY
Project #:
Project Manager: Eric Alongi
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH (Subset Non-petroleum HCs ☐)	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
49041.01	SSSV-06 101719-A	10/17/19	0815	1018	29.03	7.05	SV	EA	6L	2816	01396	X					
.02	SSSV-06-101719-B	10/17/19	0815	1018	29.21	3.92	SV	EA	6L	2808	0944	X					
.03	SSSV06-101719-C	10/17/19	0815	1018	27.23	9.15	SV	EA	6L	1591	01014	X					
.04	SSSV25-101719-B	10/17/19	913	1110	28.92	5.02	SV	EA	6L	2894	0365	X					
.05	SSSV25-101719-A	10/17/19	913	1110	28.87	6.21	SV	EA	6L	2917	01013	X					
.06	SSSV25-101719-A2	10/17/19	913	950	28.84	0	SV	EA	6L	934	0396	X					
.07	SSSV25-101719-C	10/17/19	913	1137	29.00	13.62	SV	EA	6L	2489	0714	X					
.08	SSSV15-101719-C	10/17/19	1054	1203	28.95	5.0	SV	EA	6L	1629	0352	X					
.09	SSSV15-101719-B	10/17/19	1054	1230	29.14	3.03	SV	EA	6L	2884	0765	X					
.10	SSSV15-101719-A	10/17/19	1054	1248	29.12	4.87	SV	EA	6L	2803	0444	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
	10/18/19 11:00	AAL	10/18/19 11:00
	10.19.19 7:40		10/19/19 0740

Form No: 101-02 Rev: (25-Sep-15)

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 10/19/19

ALPHA Job #: L1949041

Client Information

Client: O'BRIEN & GERE
Address: 7600 Morgan Rd
Liverpool NY 13090
Phone: 315-956-6674
Fax:
Email: eric.alongi@ramboll.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: LOCKHEED MARTIN
Project Location: Syracuse NY
Project #:
Project Manager: ERIC ALONGI
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subset Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
49041.11	SSSV24-101719-A	10/17/19	1115	1314	29.17	1703	SV	EA	6L	1652	0954	X					
.12	SSSV24-101719-B	10/17/19	1115	1312	29.09	6.0	SV	EA	6L	1558	01082	X					
.13	SSSV24-101719-C	10/17/19	1115	1312	29.04	8.75	SV	EA	6L	2951	01007	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
	10/18/19 11:00	AAL	
	10/18/19 7:00	Mike Fitzgerald	10/18/19 11:00
	10.19.19 7.40		10/19/19 0740

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ATTACHMENT 2
FIELD DATA FORMS

RAMBOLL

Multiple Vapor Intrusion Sampling Form

	Collector(s) EMA	**Barometric Pressure(in Hg)** 29.20	**Building Survey Form Completed?** No
	Structure Location 241 Farrell Road	**Humidity(%)** 78%	**Photographs Taken?** No
Project # 71949	**Sample Location(s)**	**Weather Conditions** Rainy	**PID Meter ID**
Project Name LM			**Date of Calibration**
Site Code 734055			
Date 10/17/19			

Indoor Air Sample	**Sub-structure Sample**	*Circle Sample Type:* **SS-DUP** **IA-DUP** **Indoor Air**	**Ambient**
Sample ID	Sample ID SSSV15-1017TS-A	Sample ID	Sample ID
Canister ID	Canister ID 2803	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0444	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1054	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1248	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.12	Start Pressure	Start Pressure
End Pressure	End Pressure -4.87	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) 50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~36"	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~1'		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1st	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry Damp Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	
Story/level	S-Material(Circle) Earth Wood Stone	Story/level	Wind Direction
			Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 5% / 5%		
Sample Duration (Intended) 2-hr	Purge Concentration 100 ppm O		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions Rainy

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP IA-DUP Indoor Air	Ambient
Sample ID	Sample ID SSSVIS-101719-13	Sample ID	Sample ID
Canister ID	Canister ID 2884	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0765	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1054	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1230	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start –	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.14	Start Pressure	Start Pressure
End Pressure	End Pressure -3.03	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading –	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~5'	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~48"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry Damp Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Dirt Wood Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 50%/56%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 / 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions Rain

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV15-101719-C	Sample ID	Sample ID
Canister ID	Canister ID 1629	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0352	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1054	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1203	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -28.5	Start Pressure	Start Pressure
End Pressure	End Pressure -5	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~56		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~9'	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~96"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1st	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Wood / Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 70% / 63%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 / 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Collector(s) EMA
Structure Location 241 Farrell Road
Project # 71949
Sample Location(s)
Project Name LM
Site Code 734055
Date 10/17/19

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions Rainy

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV-06-101719-A	Sample ID	Sample ID
Canister ID	Canister ID 2816	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 01396	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17/19 815	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17/19 1018	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.03	Start Pressure	Start Pressure
End Pressure	End Pressure -7.05	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~36"	PID reading	PID reading
in. tubing used	Tubing purged? Y	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~1"		
Noticeable odor	Floor surface type Concrete	Noticeable odor	Noticeable odor
Floor slab depth	Room Low Bay	Floor slab depth	Distance to road (ft)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Direction to site building (°)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Distance to site building (ft)
Room		Room	Intake height above ground level (in)
Story/level	S-Material(Circle) Dirt / Wood / Stone	Story/level	Wind Direction
			Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 75% / 70%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 / 100ppm		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 58%
Weather Conditions RAIN

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV-06-101719-B	Sample ID	Sample ID
Canister ID	Canister ID 2908	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0944	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17/19 815	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17/19 1018	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.21	Start Pressure	Start Pressure
End Pressure	End Pressure -3.92	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~6'	PID reading	PID reading
in. tubing used	Tubing purged? YES	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~48		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Wood / Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 62% / 68%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions Rainy

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV-06-101719-C	Sample ID	Sample ID
Canister ID	Canister ID 7591	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 01014	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17/19 815	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17/19 1014	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -27.23	Start Pressure	Start Pressure
End Pressure	End Pressure -9.15	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~9'	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~8'		
Noticeable odor	Floor surface type Concrete	Noticeable odor	Noticeable odor
Floor slab depth	Room Low Bay	Floor slab depth	Distance to road (ft)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Direction to site building (°)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Distance to site building (ft)
Room		Room	Intake height above ground level (in)
Story/level	S-Material(Circle) Wood / Stone	Story/level	Wind Direction
			Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 56% / 62%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 / 100 ppm		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions Rainy

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV 24-101719-A	Sample ID	Sample ID
Canister ID	Canister ID 1652	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0954	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1115	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1314	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.17	Start Pressure	Start Pressure
End Pressure	End Pressure -17.03	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~36"	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~1"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1st	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Wood / Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 60% / 65%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)
Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions RAINY

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP IA-DUP Indoor Air	Ambient
Sample ID	Sample ID SSSV24-101719-13	Sample ID	Sample ID
Canister ID	Canister ID 1556	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 01082	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1115	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1312	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.09	Start Pressure	Start Pressure
End Pressure	End Pressure -6.0	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) 56		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~60"	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~48"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry Damp Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Wood Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 61% / 67%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 / 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

	Collector(s) EMA	**Barometric Pressure(in Hg)** 29.20	**Building Survey Form Completed?** No
	Structure Location 241 Farrell Road	**Humidity(%)** 98%	**Photographs Taken?** No
Project # 71949	**Sample Location(s)**	**Weather Conditions** Rainy	**PID Meter ID**
Project Name LM			**Date of Calibration**
Site Code 734055			
Date 10/17/19			

Indoor Air Sample	**Sub-structure Sample**	*Circle Sample Type:* **SS-DUP** **IA-DUP** **Indoor Air**	**Ambient**
Sample ID	Sample ID SSSV24-101719-C	Sample ID	Sample ID
Canister ID	Canister ID 2951	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 01007	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 1115	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1312	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.04	Start Pressure	Start Pressure
End Pressure	End Pressure -8.75	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) 50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~9'	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5'	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~96"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1st	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry Damp Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Dirt Wood Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 10% / 100%		
Sample Duration (Intended) 2-hr	Purge Concentration 100ppm / 100ppm		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)
Project # 71949
Project Name LM
Site Code 734055
Date 10/17/19

Barometric Pressure(in Hg) 29.20
Humidity(%) 98%
Weather Conditions RAINY

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSSV25-101719-A	Sample ID SSSV25-101719-A2	Sample ID
Canister ID	Canister ID 2917	Canister ID 934	Canister ID
Flow Controller ID	Flow Controller ID 01013	Flow Controller ID 0396	Flow Controller ID
Date/Time start	Date/Time start 10/17 913	Date/Time start 10/17 913	Date/Time start
Date/Time end	Date/Time end 10/17 1110	Date/Time end 10/17 950	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start —	Gauge prior to start
Start Pressure	Start Pressure -28.87	Start Pressure -28.84	Start Pressure
End Pressure	End Pressure -6.21	End Pressure 0	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
Air temperature (°F)	Air temperature (°F) ~50	Air temperature (°F) ~50	Air temperature (°F)
PID reading	PID reading —	PID reading —	PID reading
in. tubing used	in. tubing used ~30'	in. tubing used 36'	in. tubing used
Tubing purged?	Tubing purged? YES	Tubing purged? YES	Tubing purged?
For indoor location:	For indoor location:	For indoor location:	For outdoor location:
	Noticeable odor No		Noticeable odor
Noticeable odor	Floor slab depth ~5"	Noticeable odor No	Distance to road (ft)
Floor slab depth	Intake depth below floor (in) ~1"	Floor slab depth ~5"	Direction to site building (°)
Intake height above floor (in)	Floor surface type Concrete	Intake depth below/above floor (in) ~1"	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type Concrete	Intake height above ground level (in)
Room	Room Low Bay	Room Low Bay	Wind Direction
Story/level	Story/level 1ST	Story/level 1ST	Wind Speed
	S-Material(Circle) Wood / Stone		
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 70% / 68%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 0		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

Project # 71949
Project Name LM
Site Code 734055
Date 10/17/15

Collector(s) EMA
Structure Location 241 Farrell Road
Sample Location(s)

Barometric Pressure(in Hg) 29.20
Humidity(%) 58%
Weather Conditions Rainy

Building Survey Form Completed? No
Photographs Taken? No
PID Meter ID
Date of Calibration

Indoor Air Sample	Sub-structure Sample	Circle Sample Type: SS-DUP / IA-DUP / Indoor Air	Ambient
Sample ID	Sample ID SSV25-101715-13	Sample ID	Sample ID
Canister ID	Canister ID 2894	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0365	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 913	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1110	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -28.92	Start Pressure	Start Pressure
End Pressure	End Pressure -5.02	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~36" ~60"	PID reading	PID reading
in. tubing used	Tubing purged? YES	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor No		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~48"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1st	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry / Damp / Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Concrete / Wood / Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 60% / 66%		
Sample Duration (Intended) 2-hr	Purge Concentration 100 ppm / 100 ppm		

RAMBOLL

Multiple Vapor Intrusion Sampling Form

	Collector(s) EMA	**Barometric Pressure(in Hg)** 29.20	**Building Survey Form Completed?** No
	Structure Location 241 Farrell Road	**Humidity(%)** ~44%	**Photographs Taken?** No
Project # 71949	**Sample Location(s)**	**Weather Conditions** Rainy	**PID Meter ID**
Project Name LM			**Date of Calibration**
Site Code 734055			
Date 10/17/19			

Indoor Air Sample	**Sub-structure Sample**	*Circle Sample Type:* **SS-DUP** **IA-DUP** **Indoor Air**	**Ambient**
Sample ID	Sample ID SSSV25-101719-C	Sample ID	Sample ID
Canister ID	Canister ID 2989	Canister ID	Canister ID
Flow Controller ID	Flow Controller ID 0714	Flow Controller ID	Flow Controller ID
Date/Time start	Date/Time start 10/17 913	Date/Time start	Date/Time start
Date/Time end	Date/Time end 10/17 1137	Date/Time end	Date/Time end
Gauge prior to start	Gauge prior to start —	Gauge prior to start	Gauge prior to start
Start Pressure	Start Pressure -29.00	Start Pressure	Start Pressure
End Pressure	End Pressure -13.62	End Pressure	End Pressure
Complete all that apply:	Complete all that apply:	Complete all that apply:	Complete all that apply:
	Air temperature (°F) ~50		
Air temperature (°F)	PID reading —	Air temperature (°F)	Air temperature (°F)
PID reading	in. tubing used ~96" ~9'	PID reading	PID reading
in. tubing used	Tubing purged? Yes	in. tubing used	in. tubing used
Tubing purged?	For indoor location:	Tubing purged?	Tubing purged?
	Noticeable odor NO.		
For indoor location:	Floor slab depth ~5"	For indoor location:	For outdoor location:
	Intake depth below floor (in) ~96"		Noticeable odor
Noticeable odor	Floor surface type Concrete	Noticeable odor	Distance to road (ft)
Floor slab depth	Room Low Bay	Floor slab depth	Direction to site building (°)
Intake height above floor (in)	Story/level 1ST	Intake depth below/above floor (in)	Distance to site building (ft)
Floor surface type	S-Moisture(Circle) Dry Damp Saturate	Floor surface type	Intake height above ground level (in)
Room		Room	Wind Direction
Story/level	S-Material(Circle) Wood Stone	Story/level	Wind Speed
Analytical methods required TO-15	Tracer Gas(if applicable) Helium	Comments	
Laboratory used Alpha Analytical	Chamber concentration 55% / 61%		
Sample Duration (Intended) 2-hr	Purge Concentration 0 100 ppm		