2024 Annual Site Management Report

APPENDIX A:
Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report

Former Lockheed Martin
French Road Facility
Utica, New York

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March 2025

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ABBREVIATIONS & ACRONYMS

AGC	annual guideline concentration
AWS	air water separator
cfm	cubic feet per minute
CVOCs	chlorinated volatile organic compounds
DAR	Division of Air Resources
DCE	dichloroethene
ft	Feet
FT	flow transmitter
GAC	granular activated carbon
GCTS	groundwater collection and treatment system
Hp	horsepower
HX	heat exchanger
HVAC	heating, ventilation and air conditioning
ICM	interim corrective measure
in. W.C.	inches of water column
lbs	pounds
Lockheed Martin	Lockheed Martin Corporation
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	operation, maintenance, and monitoring
PCE	tetrachloroethene
PLC	programmable logic controller
PT	pressure transmitter
PVC	polyvinyl chloride
SDS	sub-slab depressurization sump
SGC	Short-term Guideline Concentration
SMR	Site Management Report
SOPs	Standard Operating Procedures
SSDS	sub-slab depressurization system
SVI	soil vapor intrusion
TCE	trichloroethene

TT	temperature transmitter
USEPA	United States Environmental Protection Agency
VI	Vapor Intrusion
VC	vinyl chloride
VFD	variable frequency drive
VMP	vacuum monitoring point
VPGAC	vapor-phase granular activated carbon
VOCs	volatile organic compounds
VRV	vacuum relief valve
VT	vacuum transmitter
WFS	wet floor sensor

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) has prepared this Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report (Report) as an Appendix to the *2024 Annual Site Management Report* for the Former Lockheed Martin Corporation (Lockheed Martin) French Road Facility (Site) at 525 French Road, Utica, New York. This Report has been prepared to meet requirements specified in the *Operation, Maintenance, and Monitoring Plan, Sub-Slab Depressurization System* (OM&M Plan; Tetra Tech, 2021). The activities described herein satisfy the requirements of the October 3, 2008 "*Order on Consent*" (CO 6-20080321-5) issued by the New York State Department of Environmental Conservation (NYSDEC; NYSDEC, 2008).

This Report documents the following: ongoing operation of the sub-slab depressurization system (SSDS), monitoring of sub-slab differential pressures, and quarterly effluent vapor sampling. This report summarizes the SSDS operation, maintenance, and monitoring (OM&M) activities performed from January through December 2024.

2.0 SUB-SLAB DEPRESSURIZATION SYSTEM

2.1 HISTORY

The SSDS was initially installed in November 2007 and was operated as a pilot test to evaluate the system's effectiveness in addressing sub-slab concentrations of chlorinated volatile organic compounds (CVOCs) requiring mitigation per the New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidance at the Site. Based on the pilot-test results and supplemental indoor-air/sub-slab analytical results (*Revised Work Plan for the Interim Corrective Measure*, ARCADIS, 2008), the pilot-test system was expanded as part of an interim corrective measures (ICM) plan. The SSDS began continuous operation with sub-slab depressurization sump (SDS)-1, -2, and -3 in July 2008, and operated through November 2010.

As presented in the *Sub-Slab Depressurization System 100% Design Work Plan* (ARCADIS, 2010), OM&M activities during 2009 indicated that the ICM SSDS was not meeting operational goals in all areas. Beginning in September 2010, the SSDS was expanded to include four additional depressurization sumps (SDS-4 through SDS-7), and major components of the system were also upgraded to expand the capture area of sub-slab vapor from areas of the main building. Upgrade activities continued into February 2011, at which point the expanded system began full-scale operation. To improve capture around Vacuum Monitoring Point (VMP)-7A, an eighth sump (SDS-8) was installed in 2013.

Lockheed Martin completed elements of system optimization during 2020 that were reviewed and approved by the NYSDEC/NYSDOH. The optimization measures for the SSDS completed in 2020 included installation of a manual transfer switch for a backup generator to limit the duration of shutdown in the event of a power failure, the retirement of the vapor phase granular activated carbon (VPGAC) treatment, and installation of an additional depressurization sump, SDS-9 in December 2020. The VPGAC was removed from the site on September 12, 2024

An additional optimization effort was a reduction in the system OM&M activities with a recommended modification of the vapor sampling from the individual SDSs to only sampling the effluent vapor from the regenerative blower prior to discharge to the atmosphere. In addition, it was recommended to remove the SSDS leak detection testing of the aboveground piping components from the OM&M procedures. The NYSDEC approved the reduction of SSDS OM&M activities as discussed above verbally during a monthly call on July 1, 2020 and in a letter dated August 3, 2020 (NYSDEC, 2020).

A detailed description of the upgraded system is documented in the revised OM&M Plan (Tetra Tech, 2021). The current system layout is shown on Figure A-1.

For a more detailed SSDS history, refer to Section 1.4 of the SMR.

2.2 MAJOR SYSTEM COMPONENTS

Major components of the system are as follows:

- Nine SDSs (SDS-1 through SDS-9) are used to maintain a sub-slab vacuum within the impacted area. Each SDS was installed to a depth of two feet below the top of the concrete slab and was constructed of three-inch diameter polyvinyl chloride (PVC) well casing with 1.5 feet (ft) of 10-slot PVC well-screen. The well casing and screen were inserted into the borehole, the annular space between the well screen and the borehole was backfilled with a ⅜-inch diameter washed pea-stone filter pack to the bottom of the concrete slab, and the concrete slab was re-sealed with non-shrinking grout to the top of the slab to restore the facility floor.
- Three-inch and four-inch diameter schedule-40 PVC conveyance pipe from the SDSs to the SSDS treatment equipment in the former pH Neutralization Building.
- One moisture separator (air/water separator [AWS-200]) for condensate collection.
- One inline-air filter to protect the blower from particulates (F-201).
- A single 15-horsepower (Hp) regenerative blower (B-200), controlled by a variable frequency drive (VFD).
- A 2-Hp heat exchanger (HX-300) rated for 615 standard cubic feet per minute (cfm).
- 25 sub-slab VMPs.
- Programmable Logic Controller (PLC) to facilitate remote system monitoring and operation.

Specific system details, including equipment specifications and model numbers can be found in the OM&M Plan (Tetra Tech, 2021). During SSDS operation, soil vapor is extracted from each SDS, which creates a vacuum under the floor slab. Refer to Figure A-1 for extraction point locations. The piping system directs the extracted soil vapor to a common manifold, and then conveys the vapor to the SSDS process equipment in the former pH Neutralization Building (Figure A-1). The soil vapor is directed through a moisture separator to remove water vapor, through an inline air filter to remove particulates, by means of the regenerative blower, then to a heat exchanger and discharged to the atmosphere. The vacuum under the floor slab mitigates the potential for soil vapor to enter the indoor air.

2.3 REMEDIAL OPERATIONAL OBJECTIVES

The SSDS operational goal is to reduce the potential for sub-slab soil vapor intrusion (SVI) into the indoor air of the manufacturing building. The system operational objectives are as follows:

- Demonstrate a sufficient radius of vacuum influence in the sub-slab soil vapor environment beneath the building floor slab. The system achieves this by creating a negative differential pressure (vacuum) in the sub-slab environment relative to the indoor air. The Site-specific goal is defined as a constant vacuum in the sub-slab, regardless of heating, ventilation, and air conditioning (HVAC) conditions, maintained at or greater than 0.004 inches of water column (in. W.C.).
- Maintain and operate the system continuously without significant downtime.

- Demonstrate that the concentrations of target contaminants in the overall system influent vapor remain below the NYSDEC Division of Air Resources (DAR)-1 guidance values.

The operational goals, as recommended in the 2023 Annual Site Management Report (Tetra Tech, 2024), were successfully achieved during 2024 by performing the following activities:

- Monitoring the SSDS operation remotely on a daily basis to maintain virtually continuous operation, and responding to non-fatal and fatal alarms as required;
- Performing monthly physical system inspections to verify proper operation, and perform appropriate maintenance;
- Performing quarterly system OM&M, which included the following:
    - Recorded SDS vapor flowrates and vacuum levels, and differential pressure measurements at each VMP location;
    - Performed 24-hour continuous monitoring of differential pressure at select VMPs to verify that the SSDS is maintaining a continuous vacuum of 0.004 in. W.C. in the target areas;
    - Performed critical device testing to verify that the process control logic and instrumentation are functioning properly, and as designed; and
    - Collected system vapor samples during each quarterly monitoring event to monitor the effluent concentrations of Site-related volatile organic compounds (VOCs) to demonstrate and confirm that vapor phase treatment is not required to meet the air discharge limits.

3.0 OPERATION, MAINTENANCE, AND MONITORING ACTIVITIES

3.1 OPERATIONAL SUMMARY

The system was monitored via regular review of the daily system operational emails that are automatically generated and sent from the system PLC to system operators. System operational parameters are recorded during monthly Site inspections and quarterly system OM&M events. Table A-1 summarizes system monitoring data including applied vacuums and extracted vapor flow rates at each SDS, induced vacuum at each of the 25 monitoring points (VMP-1A through VMP-8D), and the combined system effluent flow rate flow transmitter (FT-301). Figure A-2 provides the average differential pressures measured at VMPs as part of the quarterly Site inspections.

System runtime and down-time are summarized in Table A-2. This report summarizes activities conducted during the calendar year, and system operational uptime is calculated for the calendar year. Note, operational data such as flow rates and mass removal are calculated using data between the dates of the last readings obtained in December 2023 and the last readings obtained in December 2024.

The SSDS operated with an approximately 99.75% run time during the reporting period (January – December 2024), with unscheduled maintenance and/or operational interruptions due to system alarm conditions. The system shut down only once during this period on October 23,2024 due to an out-of-range high vacuum level when a water pipe was damaged and leaked in the vicinity of soil vapor extraction well SDS-5. No other down time was experienced in 2024:

- October 23, 2024 (down 0.93 days to balance system in area of damaged water pipe)

Planned system shutdowns with durations less than three hours are not included in the system runtime calculation noted above. Shutdowns are discussed below in Section 3.5.

For every alarm occurrence, an Alarm Response Log was prepared to document the alarm and corrective actions and/or modifications made to the SSDS as a result. System alarms received during the reporting period are summarized in Section 3.6.

3.2 DAILY ROUTINE SYSTEM INSPECTIONS

Daily remote monitoring was performed during the reporting period. Monitoring included review of the daily system operational e-mails and/or logging onto the system remotely to confirm that the system was operational, that system variables were within their allowable ranges, and that no alarm conditions were present.

3.3 MONTHLY ROUTINE SYSTEM INSPECTIONS

Although the SSDS OMM calls generally for quarterly inspection and monitoring activities, certain system elements were inspected monthly in 2024, including:

- Gauge and PLC readings of various components' vacuum, temperature, and pressure;
- Normal blower operation;
- AWS, condensate collection points, and heat-trace outlet;
- Electrical usage and safety signage;
- SSDS vapor-exhaust vent screen;
- Process equipment valve positions and locks;
- Process piping; and
- Barometric pressure and ambient temperature (obtained from local weather station), noting whether barometric pressure is rising or falling.

Completed monthly OM&M log sheets are attached in Appendix A-1.

3.4 QUARTERLY SYSTEM OM&M AND INSPECTIONS

The system was monitored quarterly during the reporting period. Copies of completed quarterly log sheets are attached in Appendix A-1. Monitoring activities included collection of the monthly system data, and in addition the following data:

- Induced vacuum (instantaneous) at each VMP location;
- Applied vacuum at the blower and each SDS location;
- Extracted-vapor flow rates at each SDS location and system effluent; and
- 24-hour continuous monitoring of differential pressure at select VMPs.

The results of the system inspections are documented on the OM&M log sheets in Appendix A-1; key system parameters are summarized in Table A-1.

3.4.1 Checklist Items

In addition to the data collection noted above, the following critical system devices were inspected quarterly:

- System electrical disconnect switch;
- System hand-off-auto switches;
- Control panel indicator lights;
- Battery-operated uninterruptible power-supply;
- Electrical and safety signage;
- Inline filter (F-201);
- Vacuum transmitter located on the vacuum side of the blower B-200 (VT-201);
- Flowmeter located on the vacuum side of the blower B-200 (FT-301);

- Vacuum relief valve located on the vacuum side of the blower (VRV-200);
- High and High-High liquid-level switches located on air water separator AWS-200 tank (LSH-201 and LSHH-201);
- Pressure transmitter (PT) located on the pressure side of the blower B-200 (PT-201);
- Temperature transmitter (TT) located pre- and post- heat exchanger HX-300 (TT-201 and TT-301, respectively);
- SSDS vapor-exhaust vent screen;
- Process equipment valve locks;
- Process piping;
- Condensate collection points, and heat-trace outlet; and
- Wet Floor Sensor located below the VPGAC manifold (WFS-201).

2024 Quarterly OM&M events were performed on the following dates:

- January 5-6, 2024;
- April 4, 2024 and May 14-15, 2024;
- July 1,2 and 3, 2024;
- October 8-9, 2024.

Critical devices were tested for proper operation as described in the SSDS OM&M Manual standard operating procedures (SOPs). All devices passed the testing for each event.

3.5 NON-ROUTINE OPERATION AND MAINTENANCE ACTIVITIES

One fatal alarm occurred on October 23, 2024 due to a high post-blower temperature reading.

ConMed informed Lockheed Martin of a water line leak on October 21, 2024. Tetra Tech responded to the site on October 21, 2024 and shut down SDS-3 and SDS-5 because of water and a damaged floor. The high temperature alarm was caused by having the two extraction points offline.

A site visit was performed on October 24, 2024 to restart the system and partially reopen SDS-3. SDS-5 remained shut down until the water pipe and area floor repair was completed.

The vapor monitoring points in the flooded area were measured and the vacuums at the vacuum monitoring points were all greater than 0.004 inches of water vacuum, indicating no short-circuiting was happening and sub-slab coverage was sufficient. It was concluded that the system was stable under this configuration and should not have any more high temperature alarms. Floor repairs occurred during the month of December with reopening of SDS-5 occurring in early January 2025.

3.6 ALARM CONDITIONS AND SYSTEM MODIFICATIONS

As discussed in Section 3.5, one fatal system alarm occurred due to problems associated with a water pipe failure in the building area associated with vapor extraction well SDS-5. Fatal alarm conditions are those which result in automatic system shutdown. The cause of the fatal alarm and corresponding corrective action are summarized in Table A-2 and in Section 3.5 above. Alarm response logs describing this alarm and the response actions taken are also included in Table A-2.

An Alarm Response Log generated for alarms in 2024 are included in Appendix A-2; the alarm descriptions and actions taken are not duplicated here.

4.0 ANALYTICAL MONITORING ACTIVITIES

4.1 QUARTERLY ANALYTICAL SAMPLING

SSDS vapor samples were collected quarterly. Samples were collected with 1-liter batch-certified Summa® canisters with quick-grab regulators. All samples were analyzed by Pace Analytical Laboratories of East Longmeadow, New York per United States Environmental Protection Agency (USEPA) "Method TO-15" for VOCs.

The pre-carbon (prior to December 2020) and more recent effluent (extracted vapor) analytical results are summarized in Table A-3. A time-series plot of the analytical results for the primary COCs for the extracted vapor analytical results is provided in Figure A-3. The laboratory analytical results for each sampling event are provided in Appendix A-3.

4.2 CONTINUOUS DIFFERENTIAL PRESSURE MONITORING

On January 4-6, May 13-15, July 1-3 and October 8-10, 2024, continuous monitoring of differential vacuum at select VMPs was performed using continuous logging micromanometers (OMNIGUARD™ 4). Differential vacuum was continuously monitored for a 24-hour period at each VMP location at least once during the reporting period. The micromanometer measures the differential vacuum approximately every second and performs a rolling average of the past 15 measurements. Only the maximum and minimum differential vacuum measurements over a five-minute period are recorded. Any differential vacuums measured between the maximum or minimum values during each five-minute period are not recorded during normal operation.

In the same fashion as previous years, not all VMPs are monitored during each event; each VMP was monitored at least once during the reporting period, and some VMPs were tested more than once. The differential vacuum measured during each of the events are presented on Figure A-4 through A-32 and discussed in detail below in Section 5.3.2.

4.3 PREVIOUS ANNUAL VAPOR INTRUSION MONITORING

In previous years, annual vapor intrusion (VI) studies were performed that included sub-slab soil vapor and indoor air sampling to evaluate the effectiveness of the SSDS and monitor the current soil-vapor and indoor-air quality at the Site. Based on the findings of the 2015 study (Stantec, 2015) combined with historical results and the planned continued operation of the SSDS as a mitigation measure, Lockheed Martin proposed to suspend further annual VI studies for the eastern one-third of the building where the SSDS is located. NYSDEC and NYSDOH agreed to the proposed suspension of further annual studies in its letter to Lockheed Martin dated September 21, 2015 (NYSDEC, 2015). Accordingly, no vapor intrusion study was conducted in 2024.

5.0 SSDS PERFORMANCE RESULTS

The following subsections summarize the overall performance of the SSDS.

5.1 SSDS OPERATION

The SSDS operated continuously during the reporting period except for the down times noted above in Section 3.5 and on Table A-2. Overall runtime was approximately 99.75%.

Average instantaneous differential vacuum readings for the 25 vapor monitoring points 1A through 8D during the quarterly monitoring events range from a vacuum of 0.008 in. W.C. to 10.750 in. W.C. Average vacuum readings for SDS-1 through SDS-9 range from 1.0 in. W.C. to 78.8 in. W.C. It should be noted that the SDS-2, SDS-3, and SDS-4 applied vacuums are lower by design due to their higher extracted vapor flow rates. The average combined system influent flow rate for 2024 was approximately 118.0 scfm. Refer to Section 5.3.1 for more details.

The cumulative VOC mass removed by the SSDS was calculated based on the extracted vapor concentrations and total system flow rates (Table A-3). Although the intended purpose of the system is to minimize vapor intrusion into indoor air, the system is also removing VOC mass from the sub-slab area. Cumulative VOC-mass removed from the sub-slab area is summarized in Table A-4. From the start of SSDS operations in July 2008 through December 2024, the system has removed 11.743 pounds of target VOCs. The VOC concentrations in the effluent (same as extracted vapor because carbon treatment was ended in December 2020) over the reporting period were used, along with historic concentrations, to find maximum effluent concentrations. From each maximum effluent concentration, an actual annual impact value was calculated for each contaminant. When evaluated against the allowable short-term guideline concentration (SGC) and annual guideline concentration (AGC) values in NYSDEC DAR-1, there were no exceedances. The individual VOCs emitted, their historical maximum effluent concentrations, actual annual impact values, and AGCs and SGCs, as per NYSDEC DAR-1, are shown in Table A-5.

As discussed in Section 2.0, the air discharge from the regenerative blower does not need to be treated with the VPGAC treatment units as per the NYSDEC correspondence dated October 28, 2020.

5.2 ANALYTICAL RESULTS

Vapor analytical data for extracted vapor samples are summarized in Table A-3. Figure A-3 shows the plot of vapor VOC concentration versus time for TCE, PCE, total dichloroethene (DCE; values represent combined concentrations of 1,1-DCE, cis-1,2-DCE, and trans-1-2, DCE).

The extracted vapor sample results for TCE, PCE, and total DCE concentrations have remained stable at low concentrations (See Table A-3 and Figure A-3).

5.3 DIFFERENTIAL PRESSURE MONITORING RESULTS

As discussed in Section 4, differential pressure between the indoor air and sub-slab environment was measured at each VMP and at each sump during the quarterly events. The differential pressures recorded at each VMP were used to monitor performance of the system and its ability to maintain the desired vacuum in the soil vapor beneath the building floor slab. The differential pressures recorded are discussed in detail below.

5.3.1 Instantaneous Measurement

Instantaneous differential pressures were recorded at each VMP with a handheld digital micromanometer; these data are summarized and shown on Table A-1. The average instantaneous differential pressure values for each VMP are shown on Figure A-2. Note that the differential pressure observed at VMP locations may reflect influence by more than one SDS location.

The area of influence induced by sumps SDS-1 through SDS-7 continues to include the eastern and northern Molding Facilities, CET Room in the north, and a main hallway and Warehouse Area J to the south and east. With the installation of sump SDS-8 at the end of 2013, the applied vacuum in the Warehouse Area J room was strengthened and the system's overall area of influence expanded to include the Molding Offices and a portion of the Molding Raw Material Storage Room to the south. The new extraction sump, SDS-9 was installed in December 2020. Average readings from 2024 of VMP-8C and VMP-8D show that these points have higher and consistent vacuum readings above the minimum criteria of 0.004 inches of water. Figure A-2 depicts this data on a map of the system layout. Table A-6 summarizes the average instantaneous vacuum readings collected during the quarterly monitoring events as well as the distance and direction of VMPs relative to associated sumps.

5.3.2 Continuous Datalogging

In addition to recording instantaneous differential pressures, and as discussed in Section 4.2, continuous datalogging micromanometers were used during quarterly events to monitor differential pressure over a 24-hour period. Every VMP was tested at least once and some were tested multiple times during the year, in accordance with the recommendations of the 2014 OM&M Annual Report. This data was obtained to complement the instantaneous readings and to observe potential variations in sub-slab vacuum due to HVAC system operation, variation in barometric pressure, or other factors.

The 24-hour continuous data generally indicates that vacuum varies slightly over the course of a day at certain VMPs, as shown in several of the plots included in Figure A-4 through A-32. The data indicates that the SSDS performance may be slightly affected (decrease in sub-slab vacuum) by HVAC, barometric pressure, or other external influences at some locations.

The differential pressures recorded at each VMP, as described above, demonstrate that the SSDS is providing a sufficient vacuum in the sub-slab environment to mitigate the potential migration of sub-slab soil gas to indoor air.

6.0 2025 GOALS AND RECOMMENDATIONS

The information presented in this report indicates that the SSDS has generally operated as designed.

Continued operation, maintenance, and monitoring activities will be implemented during 2025, and are described in the sections below.

6.1 GOALS

The SSDS 2025 remedial and operational goals remain unchanged from those noted in Section 2.3. The SSDS operation will continue to be monitored via the daily system data received from the PLC, monthly visual inspections, quarterly testing, and prompt response to alarms.

The operational data to be collected include:

- Review of the daily automated system operation status email logs to virtually ensure continuous operation of the SSDS;
- Monthly system physical inspection to verify the operation of the system and to perform minimal maintenance required to maintain proper operation (e.g., inspection, draining of condensate, etc.);
- Quarterly system inspection information and required OM&M and system performance monitoring data, including the recording of flows, pressures, temperatures, and differential pressure measurements at SDSs and VMPs to verify the performance of the system;
- Quarterly collection of a vapor sample of the system effluent to monitor the mass removal of Site-related VOCs and confirm compliance with the NYSDEC Division of Air Resources;
- Quarterly 24-hour continuous monitoring of differential pressure at eight to ten select VMPs using continuous logging micromanometers to verify the system performance goal of maintaining a continuous vacuum of 0.004 in. W.C. in the areas of the Site noted above in Section 2.3; and,
- Quarterly critical device testing to verify that the control logic and instrumentation are functioning properly and as designed.

6.2 RECOMMENDATIONS

Review and analysis of SSDS monitoring data for the 2024 reporting period indicates that the system is successful at mitigating sub-slab impacts and the optimization measures conducted in 2020 have had a positive effect on the operation of the SSDS. Recommendations for the next reporting period (January–December 2025) include:

- Continue operation and maintenance of the SSDS;
- Continue system performance vacuum monitoring and effluent sampling;
- Continue preventive maintenance to maintain system reliability;
- Update the OM&M Plan as needed to include system modifications.

7.0 REFERENCES

ARCADIS, 2008 — *Revised Work Plan for the Interim Corrective Measure, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York*. [revised] April 30, 2008.

ARCADIS, 2010 — *Sub-Slab Depressurization System 100% Design Work Plan, Former Lockheed Martin French Road Facility, Utica, New York*. February 16, 2010.

NYSDEC, 2008 — *Order on Consent, Index # CO 6-20080321-5, Site Code # 633036A*. October 3, 2008.

NYSDEC, 2015 — *Re: 2015 Annual Vapor Intrusion Study and Work Plan for Soil Vapor Intrusion Sampling; Former Lockheed Martin French Road Facility; Utica, Oneida County, New York; Site No. 633036A*. September 21, 2015.

NYSDEC, 2020 — *Approval letter for the OM&M Modifications*, Former Lockheed Martin Corporation French Road Facility, Utica, New York. August 3, 2020.

Stantec, 2015 — *2015 Annual Vapor Intrusion Study, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York*. August 2015.

Tetra Tech, 2020 — *2019 Annual Site Management Report, Former Lockheed Martin French Road Facility, Utica, New York*. March 2020.

Tetra Tech, 2021 — Sub Slab Depressurization System Operational, Maintenance, and Monitoring Plan, Former Lockheed Martin French Road Facility, Utica, New York. February 2021.

Tetra Tech, 2024 — 2023 Annual Site Management Report, Former Lockheed Martin French Road Facility, Utica, New York. March 2023.

TABLES

Table A-1 Sub-Slab Depressurization System Monitoring Data
Former Lockheed Martin French Road Facility, Utica, New York

Table 1. Sub-Slab Depressurization System Monitoring Data, Former Lockheed Martin French Road Facility, Utica, New York

Date	Pressure (In. W.C.)									Combined Influent Flow Rate (scfm)[1]	Differential Pressure at VMPs [In. W.C.]																				
	SDS-1	SDS-2[3]	SDS-3	SDS-4[3]	SDS-5	SDS-6	SDS-7	SDS-8	SDS-9		1A	1B	1C	2A	2B	2C	3A	3B	3C	3D	3E	4	5	5A	5B	6	6A	6B	7	7A	7B	8A	8B	8C	8D
07/17/08	-20.5	-19.8	-19.0	-	-	-	-	-	-	102	0.004	-0.080	-0.035	-1.281	-3.516	-3.046	0.005	-0.019	-0.011	-0.014	0.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08/12/08	-28.0	-28.0	-26.0	-	-	-	-	-	-	55	0.018	-0.087	-0.014	-0.370	-1.028	-	0.020	-0.017	-0.007	-0.011	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09/11/08	-28.0	-28.0	-26.0	-	-	-	-	-	-	78	0.015	-0.101	-0.021	-0.236	-0.657	-0.554	0.009	-0.035	-0.024	-	0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09/25/08	-25.5	-26.0	-23.8	-	-	-	-	-	-	76	0.000	-0.082	-0.031	-0.362	-0.974	-0.828	0.004	-0.040	-0.033	-0.040	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/10/08	-21.0	-22.0	-18.0	-	-	-	-	-	-	81	-0.032	-0.011	-0.063	-0.317	-0.833	-0.711	-0.003	-0.058	-0.043	-0.052	-0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/17/08	-22.3	-23.0	-19.7	-	-	-	-	-	-	86	0.000	-0.052	-0.033	-0.357	-0.662	-0.807	-0.003	-0.052	-0.034	-0.047	-0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04/07/09	-18.0	-19.0	-15.5	-	-	-	-	-	-	91	0.000	-0.040	-0.025	-0.593	-1.317	-1.483	0.003	-0.044	-0.028	-0.041	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05/05/09	-18.0	-20.0	-16.0	-	-	-	-	-	-	91	0.000	0.000	-0.009	0.000	-0.034	-1.082	-0.030	-0.026	-0.042	0.012	-0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05/29/09	-16.0	-17.8	-17.0	-	-	-	-	-	-	91	-0.005	-0.233	-0.031	-0.642	-1.745	-1.613	0.000	-0.052	-0.039	-0.044	-0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07/01/09	-18.7	-18.2	-14.0	-	-	-	-	-	-	90	0.008	-0.184	-0.014	-0.681	-1.856	-1.608	0.000	-0.048	-0.035	-0.032	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08/14/09	-19.0	-18.0	-14.0	-	-	-	-	-	-	88	0.000	-0.189	-0.010	-0.755	-1.980	-1.305	0.000	-0.037	-0.040	-0.039	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09/30/09	-19.0	-13.0	-7.0	-	-	-	-	-	-	100	0.000	-0.198	-0.033	-0.739	-2.002	-1.147	-0.002	-0.038	-0.040	-0.043	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/09/09	-19.0	-12.9	-7.3	-	-	-	-	-	-	99	-0.004	-0.217	-0.030	-0.708	-2.053	-1.758	-0.002	-0.036	-0.041	-0.050	-0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/18/09	-18.0	-14.0	-6.5	-	-	-	-	-	-	98	0.000	-0.201	-0.029	-0.750	-2.034	-1.155	0.000	-0.037	-0.028	-0.035	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/21/09	-17.5	-13.0	-6.5	-	-	-	-	-	-	97	0.000	-0.107	-0.026	-0.762	-2.085	-1.118	0.000	-0.036	-0.021	-0.031	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01/12/10	-17.8	-13	-7.0	-	-	-	-	-	-	93	0.000	-0.025	-0.038	-0.777	-2.110	-1.158	-0.004	-0.046	-0.030	-0.042	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02/03/10	-17.5	-13	-6.5	-	-	-	-	-	-	111	-0.011	-0.157	-0.027	-0.759	-1.566	-1.835	-0.003	-0.040	-0.023	-0.035	-0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03/03/10	-17.5	-13	-6.5	-	-	-	-	-	-	127	0.003	-0.136	-0.026	-0.752	-2.059	-1.794	0.003	-0.043	-0.026	-0.036	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04/07/10	-17.0	-18.0	-7.0	-	-	-	-	-	-	118	0.004	-0.224	-0.032	-0.755	-2.074	-1.809	-0.007	-0.047	-0.033	-0.042	-0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05/05/10	-17.0	-18.0	-7.0	-	-	-	-	-	-	82	-0.008	-0.180	-0.031	-0.760	-2.101	-1.845	-0.004	-0.043	-0.029	-0.041	-0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06/03/10	-17.0	-17.9	-6.8	-	-	-	-	-	-	81	-0.006	-0.162	-0.033	-0.748	-1.317	-1.807	-0.010	-0.037	-0.025	-0.042	-0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07/08/10	-17.0	-18.0	-15.0	-	-	-	-	-	-	86	-0.003	-0.164	-0.031	-0.736	-1.985	-1.766	-0.004	-0.039	-0.035	-0.041	-0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08/05/10	-17.8	-18.0	-15.2	-	-	-	-	-	-	85	0.000	-0.156	-0.040	-0.765	-2.073	-1.825	0.000	-0.049	-0.034	-0.040	-0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09/07/10	-17.5	-18.0	-16.0	-	-	-	-	-	-	86	-0.004	-0.171	-0.045	-0.776	-2.098	-1.861	0.000	-0.044	-0.032	-0.041	-0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/06/10	-18.5	-19.0	-16.0	-	-	-	-	-	-	87	0.018	-0.140	-0.048	-0.807	-2.117	-1.879	0.000	-0.048	-0.142	-0.041	-0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/02/10	-20.0	-21.0	-19.0	-	-	-	-	-	-	90	0.006	-0.160	-0.052	-0.824	-2.156	-1.892	-0.003	-0.040	-0.115	-0.037	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/30/10[2]	-52.0	-8.0	-14.0	-	-	-	-	-	-	58	0.000	-0.395	-0.111	-0.540	-1.500	-1.400	0.006	-0.012	-0.036	-0.008	0.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01/05/11	-56.0	-1.4	-0.8	-1.0	-36.7	-54.1	-38.5	-	-	92	-0.003	-0.419	-0.114	-0.105	-0.261	-0.238	-0.083	-0.008	-0.018	-0.015	-0.011	-0.035	-0.127	-0.014	-0.003	-0.080	-0.009	-0.025	-0.020	0.000	-0.072	-	-	-	-
02/28/11	-67.8	-0.5	-1.9	-0.6	-55.5	-66.2	-66.2	-	-	64	-0.009	-0.490	-0.135	-0.049	-0.119	-0.110	-0.041	-0.013	-0.035	-0.018	-0.005	-0.012	-0.406	-0.041	-0.022	-0.190	0.000	-0.030	-0.028	0.000	-0.109	-	-	-	-
03/04/11	-68.2	-1.0	-0.6	-1.5	-58.0	-67.5	-67.0	-	-	82	-0.007	-0.525	-0.138	-0.091	-0.020	-0.180	-0.046	-0.012	-0.028	-0.014	-0.005	-0.037	-0.525	-0.041	-0.024	-0.200	-0.008	-0.049	-0.022	0.000	-0.118	-	-	-	-
04/04/11	-67.0	-1.0	-3.0	-1.0	-57.0	-67.0	-66.0	-	-	77	-0.015	-0.514	-0.139	-0.035	-0.094	-0.059	-0.047	-0.012	-0.032	-0.017	-0.013	-0.030	-0.133	-0.054	-0.033	-0.215	-0.045	0.055	-0.135	0.000	-0.098	-	-	-	-
05/12/11	-67.0	< -1.0	-3.0	< -1.0	-55.0	-65.0	-65.5	-	-	78	-0.022	-0.499	-0.136	-0.050	-0.118	-0.109	-0.050	-0.010	-0.030	-0.016	-0.009	-0.034	-0.211	-0.044	-0.031	-0.210	-0.006	-0.031	-0.018	0.000	-0.106	-	-	-	-
06/02/11	-70.0	< -1.0	-3.0	< -1.0	-57.0	-66.0	-70.0	-	-	83	-0.026	-0.520	-0.134	-0.055	-0.123	-0.100	-0.050	-0.011	-0.018	-0.018	-0.018	-0.049	-0.290	-0.041	-0.033	-	-0.025	-0.052	-0.043	0.000	-0.106	-	-	-	-
07/06/11	-66.0	< -1.0	-4.0	< -1.0	-56.0	-67.0	-65.0	-	-	128	-0.014	-0.450	-0.122	-0.090	-0.093	-0.080	-0.038	-0.014	-0.042	-0.019	-0.014	-0.028	-0.542	-0.045	-0.031	-0.229	-0.004	-0.036	-0.017	0.000	-0.009	-	-	-	-
08/11/11	-67.0	< -1.0	-3.0	< -1.0	-56.0	-65.0	-66.0	-	-	102	-0.024	-0.428	-0.148	-0.044	-0.093	-0.087	-0.052	-0.012	-0.038	-0.022	-0.018	-0.042	-0.602	-0.056	-0.032	-0.235	-0.023	-0.037	-0.022	0.000	-0.096	-	-	-	-
09/08/11	-72.0	-0.437	-1.35	-0.632	-55.0	-63.5	-63.5	-	-	78	-0.023	-0.550	-0.152	-0.047	-0.100	-0.094	-0.050	-0.011	-0.038	-0.020	-0.013	-0.037	-0.545	-0.046	-0.030	-0.230	-0.003	-0.027	-0.014	0.000	-0.101	-	-	-	-
10/12/11	-69.0	-0.430	-3.00	-0.590	-58.0	-68.0	-68.0	-	-	62	-0.010	-0.469	-0.147	-0.039	-0.097	-0.091	-0.060	-0.011	-0.033	-0.019	-0.018	-0.032	-0.412	-0.047	-0.032	-0.005	-0.011	-0.024	-0.017	0.000	-0.096	-	-	-	-
11/01/11	-71.0	-0.431	-1.33	-0.630	-61.0	-71.0	-71.0	-	-	76	-0.021	-0.539	-0.161	-0.023	-0.100	-0.061	-0.056	-0.016	-0.035	-0.020	-0.014	-0.038	-0.588	-0.480	-0.029	-0.230	-0.010	-0.026	-0.017	0.000	-0.109	-	-	-	-
12/01/11	-73.0	-0.282	-3.00	-0.599	-62.0	-72.0	-72.0	-	-	82	-0.019	-0.545	-0.160	-0.024	-0.048	-0.054	-0.067	-0.010	-0.028	-0.016	-0.012	-0.035	-0.641	-0.066	-0.041	-0.242	-0.021	-0.033	-0.019	-0.002	-0.112	-	-	-	-
01/11/12	-72.0	-0.554	-2.75	-0.587	-61.8	-70.0	-71.0	-	-	76	-0.017	-0.559	-0.158	-0.045	-0.094	-0.090	-0.060	-0.006	-0.015	-0.011	-0.008	-0.046	-0.624	-0.053	-0.031	-0.235	-0.029	-0.036	-0.028	-0.006	-0.118	-	-	-	-
02/09/12	-72.8	-0.797	-2.75	-0.594	-62.3	-72.0	-72.0	-	-	74	-0.018	-0.059	-0.160	-0.070	-0.150	-0.146	-0.065	-0.012	-0.023	-0.015	-0.009	-0.046	-0.432	-0.053	-0.029	-0.238	-0.016	-0.036	-0.025	-0.004	-0.124	-	-	-	-
03/01/12	-72.8	-0.870	-3.00	-0.624	-64.0	-72.3	-72.0	-	-	68	-0.008	-0.592	-0.160	-0.076	-0.173	-0.167	-0.062	-0.011	-0.025	-0.015	-0.008	-0.052	-0.628	-0.058	-0.031	-0.239	-0.020	-0.033	-0.026	-0.004	-0.123	-	-	-	-
04/03/12	-75.5	-0.828	-1.09	-0.625	-68.0	-72.5	-72.1	-	-	70	-0.034	-0.583	-0.165	-0.078	-0.167	-0.163	-0.063	-0.023	-0.023	-0.017	-0.011	-0.057	-0.633	-0.052	-0.035	-0.244	0.000	-0.024	-0.021	-0.004	-0.121	-	-	-	-
05/01/12	-74.0	-0.850	-3.00	-0.632	-64.0	-72.8	-72.3	-	-	66	-0.022	-0.559	-0.160	-0.074	-0.166	-0.156	-0.063	-0.012	-0.025	-0.017	-0.013	-0.055	-0.677	-0.054	-0.035	-0.249	-0.024	-0.043	-0.028	0.000	-0.119	-	-	-	-
06/07/12	-74.0	-0.830	-2.00	-0.633	-65.0	-74.0	-71.5	-	-	70	-0.020	-0.572	-0.156	-0.072	-0.163	-0.150	-0.063	-0.013	-0.030	-0.018	-0.012	-0.059	-0.689	-0.053	-0.360	-0.249	-0.005	-0.021	-0.030	-0.003	-0.112	-	-	-	-
07/11/12	-72.5	-0.850	-1.07	-0.640	-63.5	-71.9	-72.0	-	-	87	-0.030	-0.563	-0.164	-0.071	-0.160	-0.148	-0.061	-0.013	-0.033	-0.021	-0.018	-0.050	-0.700	-0.054	-0.040	-0.256	-0.004 to -0.009	-0.035	-0.020	0.000	-0.111	-	-	-	-
08/15/12	-75.0	-0.828	-2.00	-0.632	-64.0	-73.0	-72.5	-	-	72	-0.022	-0.578	-0.160	-0.079	-0.164	-0.155	-0.065	-0.018	-0.027	-0.019	-0.015	-0.057	-0.693	-0.056	-0.040	-0.252	-0.013	-0.028	-0.031	0.000	-0.109	-	-	-	-
09/11/12	-77.0	-0.821	-2.00	-0.633	-62.0	-75.3	-72.3	-	-	69	-0.024	-0.569	-0.162	-0.080	-0.160	-0.159	-0.070	-0.018	-0.029	-0.022	-0.013	-0.064	-0.701	-0.056	-0.035	-0.250	-0.020	-0.029	-0.032	0.000	-0.115	-	-	-	-
10/17/12	-74.8	-0.768	-1.25	-0.979	-64.7	-73.9	-74.1	-	-	74	-0.015	-0.561	-0.163	-0.068	-0.154	-0.141	-0.067	-0.009	-0.029	-0.021	-0.021	-0.044	-0.715	-0.062	-0.035	-0.255	-0.006	-0.033	-0.015	0.000	-0.118	-	-	-	-
11/08/12	-76.0	-0.825	-2.25	-0.642	-64.3	-74.3	-74.3	-	-	71	-0.020	-0.572	-0.161	-0.082	-0.160	-0.155	-0.063	-0.019	-0.028	-0.017	-0.021	-0.060	-0.716	-0.050	-0.029	-0.243	-0.014	-0.034	-0.039	0.000	-0.116	-	-	-	-

Notes on page 2

Table A-1. Sub-Slab Depressurization System Monitoring Data
Former Lockheed Martin French Road Facility, Utica, New York

Date	Pressure (In. W.C.)									Combined Influent Flow Rate (scfm)[1]	Differential Pressure at VMPs [In. W.C.]																					
	SDS-1	SDS-2[3]	SDS-3	SDS-4[3]	SDS-5	SDS-6	SDS-7	SDS-8	SDS-9		1A	1B	1C	2A	2B	2C	3A	3B	3C	3D	3E	4	5	5A	5B	6	6A	6B	7	7A	7B	8A	8B	8C	8D
01/15/13	-76.8	-0.768	-1.03	-0.970	-65.2	-75.2	-75.5	-	-	91	-0.013	-0.532	-0.161	-0.070	-0.157	-0.142	-0.063	-0.009	-0.024	-0.018	-0.016	-0.041	-0.700	-0.045	-0.032	-0.227	0.000	-0.019	-0.016	0.000	-0.119	-	-	-	-
04/23/13	-76.1	-0.853	-1.04	-0.963	-66.2	-75.9	-75.2	-	-	67	0 to -0.008	-0.525	-0.150	-0.780	-0.175	-0.162	-0.063	-0.008	-0.025	-0.018	-0.017 to -0.022	-0.045	-0.710	-0.051	-0.031	-0.221	-0.007 to -0.009	-0.011	-0.021 to -0.024	0.000	-0.106	-	-	-	-
07/10/13	-73.0	-0.895	-2.50	-0.973	-64.0	-73.0	-72.0	-	-	73	-0.025	-0.435	-0.150	-0.085	-0.195	-0.184	-0.067	-0.012	-0.025	-0.023	-0.022	-0.048	-0.686	-0.055	-0.039	-0.210	-0.023	-0.036	-0.063	0.000	-0.130	-	-	-	-
10/21/13	-74.0	-0.888	-0.40	-0.995	-64.0	-73.0	-74.0	-62.0	-	101	-0.024 to -0.031	-0.500	-0.142	-0.081	-0.193	-0.179	-0.064	-0.012	-0.028	-0.023	-0.025	-0.033	-0.720	-0.052	-0.036	-0.206	-0.006 to -0.011	-0.032	-0.037	0.000	-0.134	-2.988	-13.9	-0.006	-0.326
2013 Average[4]:	**-75.0**	**-0.851**	**-1.24**	**-0.975**	**-64.9**	**-74.3**	**-74.2**	**-62.0**		**83**	**-0.017**	**-0.498**	**-0.151**	**-0.254**	**-0.180**	**-0.167**	**-0.064**	**-0.010**	**-0.026**	**-0.021**	**-0.021**	**-0.042**	**-0.704**	**-0.051**	**-0.035**	**-0.216**	**-0.010**	**-0.025**	**-0.035**	**0.000**	**-0.122**	**-2.988**	**-13.900**	**-0.006**	**-0.326**
02/05/14	-71.0	-1.2	-1.1	-1.0	-63.0	-70.0	-70.0	-66.0	-	88	0.005 to 0.015	-0.465	-0.130	-0.092	-0.190	-0.203	-0.058	-0.007	-0.022	-0.014	-0.015	-0.075	-0.608	-0.056	-0.027	-0.174	-0.977	-0.314	-1.080	-0.220	-0.141	-3.065	-10	-0.003 to 0.004	-0.515 to 0.700
04/02/14	-63.9	-1.0	-1.0	-1.0	-55.2	-61.4	-62.0	-61.0	-	119	-0.007	-0.441	-0.122	-0.085	-0.181	-0.171	-0.056	-0.009	-0.021	-0.015	-0.013	0.009	-0.669	-0.055	-0.031	-0.205	-0.967	-0.326	-1.042	-15	-0.140	-2.992	-8.25	-0.004 to 0	-0.029 to -0.013
07/09/14	-63.0	-1.0	-2.0	-1.1	-55.0	-62.0	-63.0	-60.0	-	103	-0.019	-0.427	-0.130	-0.083	-0.182	-0.174	-0.053	-0.010	-0.029	-0.021	-0.022	-0.052	-0.692	-0.053	-0.036	-0.217	-0.912	-0.311	-0.952	-15.000	-0.135	-2.830	-13.000	-0.006	-0.017
10/08/14	-67.0	-3.0	-3.0	-2.5	-58.0	-65.0	-68.0	-65.5	-	95	-0.034	-0.397	-0.146	-0.082	-0.176	-0.173	-0.004	-0.012	-0.029	-0.025	-0.029	-0.070	-0.711	-0.054	-0.042	-0.229	-1.054	-0.382	-1.154	-5.000	-0.152	-3.176	-5.000	-0.006	-0.029
2014 Average[4]:	**-66.2**	**-1.5**	**-1.8**	**-1.4**	**-57.8**	**-64.6**	**-65.8**	**-63.1**		**101.2**	**-0.013**	**-0.433**	**-0.132**	**-0.086**	**-0.182**	**-0.180**	**-0.043**	**-0.010**	**-0.025**	**-0.019**	**-0.020**	**-0.047**	**-0.670**	**-0.055**	**-0.034**	**-0.206**	**-0.978**	**-0.333**	**-1.057**	**-8.805**	**-0.142**	**-3.016**	**-9.063**	**-0.003**	**0.006**
01/08/15	-67.0	-0.3	-1.0	-0.5	-65.0	-65.0	-66.0	-64.0	-	97	-0.006	-0.482	-0.135	-0.078	-0.176	-0.177	0.0 to -0.61	-0.019	-0.052	-0.026	-0.010	-0.058	-0.751	-0.067	-0.029	-0.242	-0.909	-0.348	-0.998	-15.000	-0.147	-2.817	-11.000	-0.006	0.000
04/16/15	-64.0	-1.0	-2.0	-1.0	-64.0	-64.0	-65.0	-61.0	-	98	-0.018	-0.413	-0.137	-0.082	-0.181	-0.177	-0.148	-0.019	-0.053	-0.031	-0.026	-0.059	-0.754	-0.064	-0.038	-0.239	-0.954	-0.320	-1.043	-15.000	-0.171	-2.919	-12.5	-0.006	-0.022
07/07/15	-65.0	-3.0	-4.0	-3.0	-65.0	-66.0	-66.0	-63.0	-	238	-0.021	-0.415	-0.141	-0.096	-0.208	-0.198	-0.142	-0.020	-0.060	-0.030	-0.022	-0.059	-0.774	-0.063	-0.045	-0.240	-0.944	-0.288	-0.915	-15.000	-0.134	-3.255	-15.000	-0.006	-0.024
10/05/15	-66.0	-0.5	-2.0	-1.5	-65.0	-65.0	-66.0	-64.0	-	81	-0.019	-0.340	-0.137	-0.088	-0.005	-0.192	-0.102	-0.019	-0.057	-0.031	-0.023	-0.055	-0.766	-0.061	-0.042	-0.245	-0.932	-0.333	-0.963	-28.000	-0.145	-3.175	-13.5	-0.006	-0.026
2015 Average[4]:	**-65.5**	**-1.2**	**-2.3**	**-1.5**	**-64.8**	**-65.0**	**-65.8**	**-63.0**		**128.6**	**-0.016**	**-0.413**	**-0.138**	**-0.086**	**-0.143**	**-0.186**	**-0.174**	**-0.019**	**-0.056**	**-0.030**	**-0.020**	**-0.058**	**-0.761**	**-0.064**	**-0.039**	**-0.242**	**-0.935**	**-0.322**	**-0.980**	**-18.250**	**-0.149**	**-3.042**	**-13.000**	**-0.006**	**-0.018**
1/5/2016[5]	-80.0	-1.0	-1.5	-1.0	-80.0	-80.0	-80.0	-79.0	-	110	-0.008	-0.480	-0.152	-0.092	-0.197	-0.195	-0.110	-0.016	-0.035	-0.021	-0.025	-0.054	-0.793	-0.068	-0.039	-0.237	-0.944	-0.321	-0.952	-30.000	-0.167	-3.154	-13.500	-0.006	-0.025
4/6/2016[6]	-64.0	-1.0	-4.0	-2.0	-63.0	-64.0	-64.0	-62.0	-	106	-0.005	-0.256	-0.113	-0.085	-0.191	-0.174	-0.099	-0.013	-0.037	-0.020	-0.007	-0.042	-0.645	-0.060	-0.033	-0.190	-0.735	-0.265	-0.725	-23.000	-0.136	-2.468	-12	-0.004	-0.021
07/14/16	-60.0	-1.0	-2.5	-1.0	-62.0	-60.0	-63.0	-60.0	-	133	-0.015	-0.333	-0.113	-0.087	-0.197	-0.184	-0.104	-0.019	-0.051	-0.030	-0.025	-0.050	-0.755	-0.060	-0.039	-0.230	-0.941	-0.317	-0.937	-32.000	-0.133	-3.297	-16	-0.005	-0.024
10/12/16	-62.0	-1.0	-4.0	-0.5	-62.0	-64.0	-60.0	-62.0	-	79	-0.006	-0.073	-0.110	-0.090	-0.203	-0.192	-0.097	-0.019	-0.050	-0.023	-0.013	-0.053	-0.732	-0.074	-0.035	-0.222	-0.926	xxxx	-0.939	-32.000	-0.140	-3.24	-16	-0.005	-0.025
2016 Average:	**-66.5**	**-1.0**	**-3.0**	**-1.1**	**-66.8**	**-67.0**	**-66.8**	**-65.8**		**107.2**	**-0.009**	**-0.286**	**-0.122**	**-0.089**	**-0.197**	**-0.186**	**-0.103**	**-0.017**	**-0.043**	**-0.024**	**-0.018**	**-0.050**	**-0.731**	**-0.066**	**-0.037**	**-0.220**	**-0.887**	**-0.301**	**-0.888**	**-29.250**	**-0.144**	**-3.040**	**-14.375**	**-0.005**	**-0.024**
01/10/17	-62.0	-2.0	-2.0	-2.0	-63.0	-63.0	-63.0	-62.0	-	61	0.015	-0.247	-0.098	-0.078	-0.179	-0.152	-0.087	-0.011	-0.033	-0.016	-0.004	-0.023	-0.665	-0.058	-0.030	-0.183	-0.797	-0.285	-0.799	-28.000	-0.142	-2.816	-12.000	0.000	-0.021
04/13/17	-62.0	-1.0	-2.0	-1.5	-62.0	-63.0	-63.0	-62.0	-	71	-0.016	-0.277	-0.115	-0.080	-0.188	-0.177	-0.088	-0.017	-0.450	-0.021	-0.010	-0.063	-0.721	-0.058	-0.047	-0.217	-0.820	-0.305	-0.778	-0.250	-0.135	-2.660	-0.250	-0.004	-0.021
07/19/17	-62.0	-1.0	-2.0	-1.0	-62.0	-62.0	-64.0	-62.0	-	120	-0.020	-0.301	-0.115	-0.091	-0.191	-0.151	-0.074	-0.017	-0.050	-0.029	-0.020	-0.050	-0.765	-0.060	-0.042	-0.235	-0.604	-0.205	-0.559	-0.250	-0.126	-2.150	-2.500	-0.032	-0.015
10/03/17	-64.0	-1.0	-2.9	-1.0	-62.0	-62.0	-63.0	-60.0	-	81	-0.012	-0.129	-0.109	-0.081	-0.182	-0.175	-0.009	-0.019	-0.045	-0.026	-0.014	-0.044	-0.733	-0.060	-0.040	-0.230	-0.936	-0.321	-0.952	-32.000	-0.133	-3.218	-16.000	-0.004	-0.025
2017 Average	**-62.5**	**-1.3**	**-2.2**	**-1.4**	**-62.3**	**-62.5**	**-63.3**	**-61.5**		**83.2**	**-0.008**	**-0.239**	**-0.109**	**-0.083**	**-0.185**	**-0.164**	**-0.065**	**-0.016**	**-0.145**	**-0.023**	**-0.012**	**-0.045**	**-0.721**	**-0.059**	**-0.040**	**-0.216**	**-0.789**	**-0.279**	**-0.772**	**-15.125**	**-0.134**	**-2.711**	**-7.688**	**-0.010**	**-0.021**
1/2/2018 [7]	-68.0	-1.0	-2.0	-1.5	-62.0	-65.0	-64.0	-62.0	-	53	0.000	-0.172	-0.102	-0.079	-0.172	-0.157	-0.075	-0.013	-0.030	-0.140	-0.004	-0.032	-0.512	-0.047	-0.022	-0.155	-0.797	-0.262	-0.764	-0.180	-0.128	-2.733	-1.400	0.000	-0.020
04/02/18	-62.0	-1.0	-2.0	-1.5	-62.0	-62.0	-63.0	-62.0	-	80	-0.004	-0.340	-0.109	-0.086	-0.178	-0.139	-0.078	-0.014	-0.036	-0.023	-0.011	-0.047	-0.278	-0.055	-0.033	-0.184	-0.669	-0.241	-0.425	-25.000	-0.132	-2.541	-14.000	-0.005	-0.025
07/10/18	-62.0	-1.0	-2.0	-1.5	-62.0	-62.0	-60.0	-60.0	-	117	-0.020	-0.271	-0.116	-0.077	-0.162	-0.168	-0.007	-0.018	-0.047	-0.028	-0.014	-0.034	-0.693	-0.058	-0.040	-0.212	-0.870	-0.320	-0.815	-2.000	-0.129	-2.000	-16.000	-0.005	-0.025
10/9/218 [8]	-62.0	-1.0	-4.0	-1.0	-62.0	-62.0	-62.0	-60.0	-	93	-0.020	-0.212	-	-0.077	-0.170	-0.160	-0.007	-0.015	-0.046	-0.048	-0.004	-0.013	-0.705	-0.063	-0.039	-0.021	-0.848	-0.309	-0.493	-34.000	-0.137	-3.182	-16.000	-0.004	-0.023
2018 Average	**-63.5**	**-1.0**	**-2.5**	**-1.4**	**-62.0**	**-62.8**	**-62.3**	**-61.0**		**85.8**	**-0.011**	**-0.249**	**-0.109**	**-0.080**	**-0.171**	**-0.156**	**-0.042**	**-0.015**	**-0.040**	**-0.060**	**-0.008**	**-0.032**	**-0.547**	**-0.056**	**-0.034**	**-0.143**	**-0.796**	**-0.283**	**-0.624**	**-15.295**	**-0.132**	**-2.614**	**-11.850**	**-0.004**	**-0.023**
1/2/2019 [9]	-68.0	-1.0	-2.0	-1.5	-64.0	-64.0	-64.0	-62.0	-	62	-0.004	-0.254	-0.094	-0.072	-0.151	-0.154	-0.009	-0.013	-0.036	-0.120	-0.008	-0.009	-0.597	-0.056	-0.032	-0.170	-0.815	-0.277	-0.757	-34.000	-0.136	-2.878	-18.000	0.000	-0.021
04/01/19	-78.0	-1.0	-80.0	-1.7	-78.0	-76.0	-77.0	-77.0	-	94	-0.010	-0.315	-0.117	-0.077	-0.158	-0.151	-0.110	-0.012	-0.034	-0.022	-0.012	-0.048	-0.573	-0.067	-0.033	-0.193	-0.935	-0.344	-0.691	-5.088	-0.149	-3.110	-16.000	-0.005	-0.025
07/09/19	-76.0	-0.8	-3.2	-1.7	-76.0	-75.0	-76.0	-72.0	-	133	-0.007	-0.294	-0.110	-0.078	-0.160	-0.160	-0.079	-0.017	-0.045	-0.030	-0.018	-0.052	-0.755	-0.065	-0.044	-0.219	-0.812	-0.300	-0.704	-5.123	-0.140	-2.940	-16.000	-0.005	-0.023
10/01/19	-78.0	-0.8	-3.2	-1.8	-77.0	-77.0	-77.0	-72.0	-	95	-0.011	-0.142	-0.116	-0.073	-0.152	-0.151	-0.082	-0.017	-0.044	-0.030	-0.023	-0.018	-0.747	-0.065	-0.042	-0.210	-0.854	-0.301	-0.751	-5.089	-0.141	-3.074	-15.000	-0.005	-0.026
2019 Average	**-75.0**	**-0.9**	**-22.1**	**-1.7**	**-73.8**	**-73.0**	**-73.5**	**-70.8**		**96.2**	**-0.008**	**-0.251**	**-0.109**	**-0.075**	**-0.155**	**-0.154**	**-0.070**	**-0.015**	**-0.040**	**-0.051**	**-0.015**	**-0.032**	**-0.668**	**-0.063**	**-0.038**	**-0.198**	**-0.854**	**-0.306**	**-0.726**	**-12.325**	**-0.142**	**-3.001**	**-16.250**	**-0.004**	**-0.024**
01/20/20	-78.0	-1.0	-2.0	-1.9	-78.0	-78.0	-79.0	-76.0	-	67	-0.003	-0.246	-0.109	-0.059	-0.118	-0.105	-0.071	-0.009	-0.025	-0.019	-0.007	-0.027	-0.645	-0.069	-0.027	-0.186	-0.825	-0.285	-0.715	-5.100	-0.137	-2.860	-16.000	-0.004	-0.017
4/6/2020[10]	-	-	-	-	-	-	-	-	-	94[11]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07/06/20	-78.0	-0.7	-3.8	-1.9	-78.0	-78.0	-78.0	-76.0	-	102[12]	-0.030	-0.330	-0.127	-0.057	-0.109	-0.108	-0.065	-0.020	-0.044	-0.032	-0.023	-0.028	-0.754	-0.065	-0.043	-0.213	-0.818	-0.290	-0.879	-36.000	-0.137	-3.090	-20.000	-0.005	-0.024
10/06/20	-77.0	-0.7	-4.1	-2.1	-77.0	-77.0	-76.0	-77.0	-	80[12]	-0.011	-0.263	-0.112	-0.060	-0.112	-0.111	-0.064	-0.017	-0.037	-0.025	-0.014	-0.008	-0.746	-0.070	-0.040	-0.218	-0.787	-0.217	-0.534	-26.000	-0.124	-2.197	-12.000	-0.007	-0.029
2020 Average	**-77.7**	**-0.8**	**-3.3**	**-2.0**	**-77.7**	**-77.7**	**-77.7**	**-76.3**		**85.8**	**-0.015**	**-0.280**	**-0.116**	**-0.059**	**-0.113**	**-0.108**	**-0.067**	**-0.015**	**-0.035**	**-0.025**	**-0.015**	**-0.021**	**-0.715**	**-0.068**	**-0.037**	**-0.206**	**-0.810**	**-0.264**	**-0.709**	**-22.367**	**-0.133**	**-2.716**	**-16.000**	**-0.005**	**-0.023**
01/07/21	-77.0	-1.0	-4.0	-2.1	-77.0	-77.0	-77.0	-74.0	-11.0	103[12]	-0.004	-0.326	-0.099	-0.056	-0.107	-0.105	-0.047	-0.011	-0.027	-0.020	-0.008	-0.006	-0.596	-0.065	-0.038	-0.180	-0.507	-0.195	-0.495	-11.000	-0.141	-1.870	-12.000	-0.083	-0.116
04/06/21	-78.0	-1.0	-4.1	-2.2	-78.0	-78.0	-78.0	-78.0	-9.0	114[12]	-0.031	-0.334	-0.119	-0.052	-0.100	-0.099	-0.065	-0.018	-0.035	-0.030	-0.017	-0.009	-0.636	-0.063	-0.040	-0.188	-0.457	-0.186	-0.775	-13.000	-0.143	-1.483	-9.000	-0.080	-0.116
07/06/21	-76.0	-1.0	-4.2	-2.3	-77.0	-76.0	-76.0	-75.0	-9.0	126[12]	-0.015	-0.307	-0.134	-0.065	-0.117	-0.107	-0.073	-0.012	-0.033	-0.023	-0.015	-0.011	-0.763	-0.094	-0.041	-0.274	-0.521	-0.212	-0.706	-17.000	-0.124	-2.402	-18.000	-0.091	-0.131
10/04/21	-77.0	-1.0	-3.8	-2.2	-76.0	-76.0	-76.0	-75.0	-9.0	120[12]	-0.016	-0.322	-0.109	-0.060	-0.111	-0.124	-0.065	-0.016	-0.035	-0.030	-0.019	-0.005	-0.744	-0.059	-0.038	-0.227	-0.714	-0.262	-0.754	-16.000	-0.155	-2.265	-18.000	-0.091	-0.142
2021 Average	**-77.0**	**-1.0**	**-4.0**	**-2.2**	**-77.0**	**-76.8**	**-76.8**	**-75.5**	**-9.5**	**108.5**	**-0.017**	**-0.322**	**-0.115**	**-0.058**	**-0.109**	**-0.109**	**-0.063**	**-0.014**	**-0.033**	**-0.026**	**-0.015**	**-0.008**	**-0.685**	**-0.070**	**-0.039**	**-0.217**	**-0.550**	**-0.214**	**-0.683**	**-14.250**	**-0.141**	**-2.005**	**-14.250**	**-0.086**	**-0.126**
01/07/22	-79.0	-1.0	-4.9	-2.9	-78.0	-78.0	-78.0	-78.0	-10.0	97[12]	-0.011	-0.311	-0.094	-0.047	-0.095	-0.087	-0.090	-0.010	-0.019	-0.016	-0.032	-0.020	-0.662	-0.059	-0.032	-0.198	-0.449	-0.166	-0.491	-16.000	-0.148	-1.612	-8.100	-0.085	-0.126
04/04/22	-80.0	-1.0	-4.4	-3.0	-78.0	-78.0	-80.0	-78.0	-10.0	102[12]	-0.005	-0.315	-0.101	-0.052	-0.089	-0.097	-0.105	-0.011	-0.026	-0.020	-0.011	-0.008	-0.667	-0.069	-0.048	-0.202	-0.424	-0.191	-0.445	-16.000	-0.146	-1.421	-8.500	-0.075	-0.112
07/11/22	-76.0	-1.0	-5.0	-3.0	-75.0	-76.0	-75.0	-74.0	-10.0	137[12]	-0.019	-0.322	-0.324	-0.071	-0.118	-0.128	-0.023	-0.018	-0.041	-0.023	-0.017	-0.008	-0.707	-0.060	-0.018	-0.220	-0.665	-0.629	-0.555	-5.110	-0.126	-2.236	-14.500	-0.080	-0.120
10/28/22	-80.0	-1.0	-5.0	-3.5	-80.0	-79.0	-78.0	-78.0	-10.0	111[12]	-0.007	-0.290	-0.095	-0.048	-0.900	-0.085	-0.029	-0.014	-0.026	-0.024	-0.013	-0.004	-0.706	-0.058	-0.031	-0.206	-0.516	-0.906	-0.701	-5.100	-0.135	-1.900	-16.000	-0.076	-0.123
2022 Average	**-78.8**	**-1.0**	**-4.8**	**-3.1**	**-77.8**	**-77.8**	**-77.8**	**-77.0**	**-10.0**	**111.8**	**-0.011**	**-0.310**	**-0.154**	**-0.055**	**-0.301**	**-0.099**	**-0.062**	**-0.013**	**-0.028**	**-0.021**	**-0.018**	**-0.010**	**-0.686**	**-0.062**	**-0.032**	**-0.207**	**-0.514**	**-0.473**	**-0.548**	**-10.553**	**-0.139**	**-1.792**	**-11.775**	**-0.079**	**-0.120**
1/4/2023[13]	-79.0	-1.0	-4.9	-2.9	-78.0	-78.0	-78.0	-78.0	-10.0	107[12]	-0.009	-0.300	-0.094	-0.048	-0.090	-0.086	-0.030	-0.012	-0.022	-0.060	-0.012	-0.022	-0.608	-	-0.031	-0.202	-0.483	-0.536	-0.701	-8.200	-0.142	-1.440	-10.600	-0.083	-0.122
04/05/23	-80.0	-1.0	-5.0	-3.5	-80.0	-79.0	-79.0	-78.0	-10.0	84[12]	-0.015	-0.300	-0.090	-0.050	-0.085	-0.090	-0.030	-0.013	-0.021	-0.060	-0.015	-0.030	-0.610	-0.060	-0.040	-0.200	-0.490	-0.550	-0.600	-8.200	-0.150	-1.500	-10.600	-0.083	-0.120
07/05/23	-77.0	-1.0	-6.0	-1.0	-75.0	-76.0	-76.0	-75.0	-10.0	127[12]	-0.005	-0.630	-0.190	-0.011	-0.244	-0.224	-0.016	-0.012	-0.033	-0.015	-0.010	-0.049	-0.605	-0.057	-0.038	-0.220	-0.663	-0.541	-0.140	-5.100	-0.033	-0.617	-12.000	-0.088	-0.030
10/03/23	-78.0	-1.0	-5.0	-1.0	-78.0	-78.0	-76.0	-76.0	-10.0	125[12]	-0.044	-0.740	-0.256	-0.007	-0.234	-0.196	-0.233	-0.031	-0.087	-0.058	-0.042	-0.018	-0.642	-0.176	-0.114	-0.510	-0.589	-0.601	-0.649	-5.100	-0.358	-0.536	-12.000	-0.088	-0.038
2023 Average	**-78.5**	**-1.0**	**-5.2**	**-2.1**	**-77.8**	**-77.8**	**-77.3**	**-76.8**	**-10.0**	**111**	**-0.018**	**-0.493**	**-0.158**	**-0.029**	**-0.163**	**-0.149**	**-0.077**	**-0.017**	**-0.041**	**-0.048**	**-0.020**	**-0.030**	**-0.616**	**-0.098**	**-0.056**	**-0.283**	**-0.556**	**-0.557**	**-0.523**	**-6.650**	**-0.171**	**-1.023**	**-11.300**	**-0.086**	**-0.077**

Table A-1. Sub-Slab Depressurization System Monitoring Data
Former Lockheed Martin French Road Facility, Utica, New York

Date	Pressure (In. W.C.)									Combined Influent Flow Rate (scfm)[1]	Differential Pressure at VMPs [In. W.C.]																								
	SDS-1	SDS-2[3]	SDS-3	SDS-4[3]	SDS-5	SDS-6	SDS-7	SDS-8	SDS-9		1A	1B	1C	2A	2B	2C	3A	3B	3C	3D	3E	4	5	5A	5B	6	6A	6B	7	7A	7B	8A	8B	8C	8D
01/02/24	-80.0	-1.0	-2.4	-2.0	-79.0	-79.0	-79.0	-78.0	-10.0	104[12]	-0.024	-0.688	-0.048	-0.084	-0.178	-0.137	-0.182	-0.006	-0.032	-0.018	-0.013	-0.045	-0.313	-0.159	-0.052	-0.408	-0.186	-0.486	-1.400	-10.000	-0.366	-3.943	-11.000	-0.188	-0.300
04/24/24	-78.0	-1.0	-3.0	-2.0	-78.0	-78.0	-78.0	-78.0	-10.0	118[12]	-0.030	-0.682	-0.010	-0.122	-0.210	-0.072	-0.181	-0.005	-0.086	-0.071	-0.030	-0.010	-0.142	-0.139	-0.074	-0.440	-0.113	-0.460	-1.430	-10.000	-0.350	-3.315	-11.000	-0.186	-0.270
07/01/24	-79.0	-1.0	-3.0	-4.0	-78.0	-78.0	-78.0	-72.0	-10.0	123[12]	-0.036	-0.701	-0.027	-0.119	-0.206	-0.170	-0.217	-0.005	-0.066	-0.061	-0.042	-0.012	-0.157	-0.164	-0.094	-0.482	-0.152	-0.585	-1.524	-10.000	-0.352	-5.590	-11.000	-0.197	-0.318
10/08/24	-78.0	-1.0	-3.6	-6.0	-77.0	-77.0	-77.0	-76.0	-10.0	126[12]	-0.008	-0.186	-0.101	-0.043	-0.068	-0.082	-0.086	-0.017	-0.036	-0.026	-0.014	-0.004	-0.575	-0.044	-0.039	-0.178	-0.073	-0.270	-0.563	-10.000	-0.136	-2.553	-10.000	-0.088	-0.135
2024 Average	-78.8	-1.0	-3.0	-3.5	-78.0	-78.0	-78.0	-76.0	-10.0	**118**	-0.025	-0.564	-0.047	-0.092	-0.166	-0.115	-0.167	-0.008	-0.055	-0.044	-0.025	-0.018	-0.297	-0.127	-0.065	-0.377	-0.131	-0.450	-1.229	-10.000	-0.301	-3.850	-10.750	-0.165	-0.256
Average[4]:	**-57.2**	**-6.0**	**-6.6**	**-1.5**	**-66.3**	**-70.5**	**-70.4**	**-69.2**	**-9.9**	**89.4**	**-0.011**	**-0.336**	**-0.104**	**-0.238**	**-0.588**	**-0.510**	**-0.052**	**-0.021**	**-0.040**	**-0.030**	**-0.011**	**-0.036**	**-0.610**	**-0.069**	**-0.042**	**-0.225**	**-0.458**	**-0.222**	**-0.508**	**-8.988**	**-0.138**	**-2.625**	**-12.343**	**-0.043**	**-0.076**

Notes:
1. Cumulative influent flow rates shown after and including 12/30/10 obtained using manual anemometer. Prior to 12/30/10, combined influent flow rate value obtained from flow transmitter FT-201.
2. New blower installed as part of system upgrades in operation.
3. Vacuum at SDS-2 and SDS-4 wellheads from 5/12/11 through 8/11/11 were recorded as zero due to the scaled range of the field mounted vacuum gauges. Subsequent vacuum readings at those SDS locations have been recorded with a micromanometer.
4. For instances in which a differential pressure range has been provided for a VMP on a specific date, the middle of the range has been used for average calculations.
These values have not been included in the calculation of the average sub-slab vacuums.
5. On 12/21/2015 the Blower was switched to bypass the VFD, so it is drawing more vacuum than normal. The field pressure readings for SDS-1, -5, -6, and -7 were < -80, but for calculation purposes were stated as -80. When a replacement VFD is installed in Q1 2016 these numbers are expected to return to normal ranges, so no corrective action is being taken at this time to address the higher pressures.
6. Blower and VFD replaced on 3/1/16. Vacuum readings taken on 4/6/2016 and onward reflect.
7. On February 8, 2018 SDS-3 Pressure was measured at -2.0 In. W.C.
8. On October 9, 2018, the differential pressure at VMP-1C could not be measured due to the presence of water on the floor.
9. On February 4, 2019 SDS-3 Pressure was measured at -2.0 In. W.C.
10. Due to COVID-19, no entry to facility was performed during the April 2020 quarterly event; no readings were collected from the SDSs.
11. As per Note 10, a combined influent flow rate was not calculated from the individual SDSs. The combined influent flow rate value was obtained from flow transmitter FT-301.
12. Combined influent flow rate was not calculated from the individual SDSs. The combined influent flow rate value was obtained from flow transmitter FT-301.
13. On January 4, 2023, the differential pressure at VMP-5A could not be measured due to the presence of palletts covering the monitoring point.

Definitions:
ft - feet
In. W.C. - Inches of Water Column
scfm - standard cubic feet per minute
VMP - Vacuum Monitoring Point

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
November 2007	Pilot test conducted						
7/19/2008	System brought online following ICM upgrades and startup/shakedown period						
8/11/2008	8/11/08 6:18	8/11/08 14:50	0.4	05	VFD run fault	Power outage/Voltage spike	Restart system
10/11/2008	10/11/08 6:42	10/13/08 9:16	2.1	05	VFD run fault	Power outage/Voltage spike	Restart system
2008 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		2.5	162.5	99%			
1/10/2009	1/10/09 23:09	1/13/09 18:48	2.8	06	AWS-HH	Build up of condensate	Thaw out frozen tank and install heat trace/insulating jacket on AWS tank.
2/2/2009	2/1/09 0:00	2/2/09 15:30	1.6	NA	Power outage	Power outage/ Faulty battery backup	Restart system
3/9/2009	3/8/09 11:03	3/9/09 11:03	1.0	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
7/7/2009	7/7/09 7:21	7/8/09 11:00	1.2	05	VFD run fault	ConMed temporarily shuts down power	Restart system
7/17/2009	7/17/09 10:57	7/17/09 13:00	0.1	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
7/31/2009	7/31/09 10:00	8/3/09 14:30	3.2	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
11/14/2009	11/14/09 18:55	11/16/09 8:00	1.5	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
2009 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		11.4	352.6	97%			
3/22/2010	3/22/10 11:16	3/22/10 18:26	0.3	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
6/8/2010	6/8/10 8:22	6/8/10 15:21	0.3	05	VFD run fault	Power outage/Voltage spike	Inspect and restart system
11/11/2010[1]	11/11/10 10:00	12/31/10 23:59	9.0	05	LOTO	System was shutdown periodically from 11/11 through 12/31 in order to implement remedial enhancements	Restart system daily
2010 % Run Time Summary[1]		**Days Offline**	**Days Online**	**% Run Time**			
		9.6	355.4	97%			
1/27/2011[1]	1/27/11 19:53	1/28/11 9:13	0.6	13	HX fault	Local HOA switch intentionally turned into off position. PLC still attempting to turn on HX.	Temperature setpoints controlling HX on/off operation temporarily adjusted so that PLC will not attempt to turn on HX. Restart system.
2/22/2011	2/22/11 9:52	2/22/11 16:15	0.3	NA	Manual shutdown	System temporarily shutdown to allow for supplemental lighting installation.	Restart system.
2/28/2011	2/28/11 12:08	2/28/11 21:12	0.4	NA	Manual shutdown	System temporarily shutdown to allow for VPGAC manifold repairs.	Restart system.
3/2/2011	3/2/11 12:40	3/2/11 18:01	0.2	NA	Manual shutdown	System temporarily shutdown to allow for electrical/programming maintenance.	Restart system.
3/30/2011	3/30/11 12:52	3/30/11 20:28	0.3	NA	Manual shutdown	System temporarily shutdown to allow for electrical labeling.	Restart system.
3/31/2011	3/31/11 8:05	3/31/11 13:33	0.2	NA	Manual shutdown	System temporarily shutdown to allow for electrical labeling.	Restart system.
4/11/2011	4/11/11 17:51	4/12/11 9:08	0.6	10	High TT-201	Post-blower temperature exceeding initial high temperature alarm setpoint.	Adjust high temperature setpoint from 180 °F to 200 °F.
4/24/2011	4/24/11 22:10	4/25/11 17:31	0.8	27	Low Flow	Potential drifting associated with transmitter calibration.	Continue to monitor and re-calibrate during next O&M visit if needed.
5/29/2011	5/29/11 15:13	6/1/11 20:34	3.2	10	High TT-201	Post-blower temperature exceeding initial high temperature alarm setpoint.	Adjust high temperature setpoint from 180 °F to 210 °F.
6/10/2011	6/10/11 23:31	6/13/11 16:18	2.7	NA	Power outage	Power outage/Voltage spike	Inspect and restart system. Upon inspection, replacement of a blown fuse conducted.
7/9/2011	7/9/11 7:01	7/11/11 11:08	2.2	28	Power outage	Power outage/Voltage spike	Restart system.
9/7/2011	9/7/11 1:14	9/7/11 10:14	0.4	27	Low Flow	Potential drifting associated with transmitter calibration.	Inspect flow transmitter on 9/8/11.
9/7/2011	9/7/11 16:56	9/8/11 10:31	0.7	27	Low Flow	Potential drifting associated with transmitter calibration.	Inspect flow transmitter on 9/8/11.
9/14/2011	9/14/11 7:44	9/14/11 14:18	0.3	NA	Manual shutdown	System temporarily shutdown to allow for heat exchanger bypass piping modification.	Operate ICM system while main system offline.
9/16/2011	9/16/11 7:07	9/16/11 12:06	0.2	NA	Manual shutdown	System temporarily shutdown to allow for heat exchanger bypass piping modification.	Operate ICM system while main system offline.
12/14/2011	12/14/11 4:23	12/14/11 12:24	0.3	27	Low Flow	Potential drifting associated with transmitter calibration.	Monitor system and flowrate remotely.
12/19/2011	12/19/11 12:56	12/19/11 16:30	0.1	27	Low Flow	Potential drifting associated with transmitter calibration.	Monitor system and flowrate remotely.
12/19/2011	12/19/11 17:58	12/19/11 22:00	0.2	27	Low Flow	Potential drifting associated with transmitter calibration.	Monitor system and flowrate remotely. Modify alarm time delay and low set point.
12/23/2011	12/23/11 6:11	12/23/11 10:10	0.2	27	Low Flow	Potential drifting associated with transmitter calibration.	Monitor system and flowrate remotely. Modify alarm time delay and low set point.
12/24/2011	12/24/11 0:34	12/24/11 8:20	0.3	27	Low Flow	Potential drifting associated with transmitter calibration.	Reduce low flow alarm set point.
2011 % Run Time Summary[1][2]		**Days Offline**	**Days Online**	**% Run Time**			
		14.2	350.8	96%			
1/14/2012	1/14/12 0:52	1/14/12 8:37	0.3	27	Low Flow	Potential drifting associated with cold weather pattern.	Restart system
1/19/2012	1/19/12 1:05	1/19/12 7:47	0.3	27	Low Flow	Potential drifting associated with cold weather pattern.	Restart system
2/13/2012	2/13/12 0:38	2/13/12 10:30	0.4	27	Low Flow	Suspect flow transmitter may have had some moisture on it, resulting in a false low air flow rate.	Restart system
2/15/2012	2/15/12 18:48	2/15/12 19:35	0.0	16	High Vacuum	Suspect that the flow transmitters 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the vacuum readings were steady at around -71 in.W.C. prior to alarm. System was restarted.
3/1/2012	3/1/12 5:31	3/1/12 11:42	0.3	27	Low Flow	Potential drifting associated with cold weather pattern.	Restart system. Performed a field calibration to fix noted drifting.
3/7/2012	3/7/12 10:30	3/7/12 17:49	0.3	NA	System temporarily taken offline to complete the arc flash study field reconnaissance	NA	NA
4/20/2012	4/20/12 15:17	4/20/12 15:30	0.0	NA	System temporarily taken offline to complete the arc flash study field reconnaissance	NA	NA
4/23/2012	4/23/12 12:45	4/23/12 16:46	0.2	NA	Chris Davern onsite to modify the SSDS cfg file and test UPS battery.	The SSDS cfg file was modified so that the High for TT-201 is the fatal alarm as opposed to what it was previously, the High-High. UPS battery tested successfully and lasted approximately 60 minutes.	
6/21/2012	6/21/12 19:15	6/22/12 11:00	0.7	10	High TT-201	Post-blower/Pre-HX temperature exceeded high temperature alarm setpoint (225 F). Ambient temperatures exceeded 90's F.	Restart the system following inspection and passing of seasonal high ambient temperatures.
7/4/2012	7/4/12 17:58	7/5/12 11:00	0.7	10	High TT-201	Post-blower/Pre-HX temperature exceeded high temperature alarm setpoint (225 F). Ambient temperatures exceeded 90's F.	Restart system following inspection.
7/14/2012	7/14/12 17:41	7/16/12 12:26	1.8	10	High TT-201	Post-blower/Pre-HX temperature exceeded high temperature alarm setpoint (225 F). Ambient temperatures exceeded 90's F.	Restart system. Confirmed accuracy of post-blower temperature transmitter TT-201 and post-blower temperature gauge TI-201. Conducted several tests consisting of varying blower speed and adjusting fresh-air dilution valve to observe impact on temperature rise through blower.
8/4/2012	8/4/12 16:17	8/6/12 9:19	1.7	10	High TT-201	Vapor stream post-blower exceeded the high set point if 225 F due to increased summer ambient temperatures.	Restart system remotely at 9:19 on 8/6/12. Continue to monitor post-blower temperatures during forecasted higher ambient temperature conditions.
9/13/2012	9/13/12 19:02	9/14/12 9:30	0.6	16	High Vacuum, VT-201	Suspect that the vacuum transmitter's 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the vacuum readings were steady at around -73 in.W.C. prior to alarm. System was restarted. The high vacuum alarm set point was changed from -80 to -85 in.W.C.
2012 % Run Time Summary (through December 31)		**Days Offline**	**Days Online**	**% Run Time**			
		7.2	358.8	98%			
4/21/2013	4/21/13 16:02	4/22/13 8:45	0.7	16	High Vacuum, VT-201	Suspect that the vacuum transmitter's 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the vacuum readings were steady at around -73 in.W.C. prior to alarm. System was restarted. The high vacuum alarm set point was changed from -80 to -85 in.W.C.
9/4/2013	9/4/13 7:05	9/5/13 8:46	1.1	24	Low Pressure, PT-201	Suspect that the pressure transmitter's 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the pressure readings were steady at around 1.5-1.8 in.W.C. prior to alarm. System was restarted and monitored for operation.

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
10/27/2013	10/27/13 22:21	10/28/13 8:56	0.4	24	Low Pressure, PT-201	Suspect that the pressure transmitter's 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the pressure readings were steady at around 3.8-4.1 in.W.C. prior to alarm. The alarm time delay was increased from 15 sec to 120 sec. System was restarted and monitored for operation.
11/6/2013	11/6/13 8:21	11/7/13 5:30	0.9	16	High Vacuum, VT-201	Suspect that the flow transmitters 4-20mA signal may have temporarily drifted.	The alarm time delay was increased from 2 seconds to 2 minutes. System was restarted and monitored for operation.
12/20/2013	12/19/13 4:15	12/19/13 18:52	0.6	21	VFD Fault	Suspect Temporary Power Failure	Based on correspondence with the facility operator (ConMed) they had some electrical issues with their parking lot lighting. As a result the SSDS building may have temporarily lost power. System was restarted and monitored for operation.
2013 % Run Time Summary (through December 31)	**Days Offline**	**Days Online**	**% Run Time**				
	3.7	361.3	99%				

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
1/9/2014	1/9/14 15:11	1/9/14 21:00	0.2	13	Heat Exchanger Motor Fault	As a result of the recent snow storm which occurred during this period snow/ice may have built up on the fan blades and thus frozen and thereby causing enough resistance to the fan motor to initiate the failed start condition detected by the PLC input.	Inspect HX physical HOA and locally mounted disconnect switches. The HOA was confirmed to be in the "Auto" position and the local disconnect was also confirmed to be in the "On" position. Verify that the overload relay did not trip. System was restarted and monitored for operation.
1/14/2014	1/14/14 6:57	1/14/14 7:49	0.0	24	Low Pressure, PT-201	Suspect that the pressure transmitter's 4-20mA signal may have temporarily drifted.	Log into the system remotely and downloaded the datalogger files to confirm possible causes of alarm. Datalogger file indicated that the pressure readings were steady at around 1.5-1.8 in.W.C. prior to alarm. The alarm time dealy was increased from 2 to 5 minutes. System was restarted and monitored for operation.
2/3/2014	2/3/14 21:51	2/4/14 10:05	0.5	23	High Pressure, PT-201	Condensate buildup in the carbon bed manifold piping lead to airflow constriction.	Site visit was performed to drain carbon manifold piping. System was restarted and monitored for operation.
2/4/2014	2/4/14 10:06	2/4/14 10:56	0.0	23	High Pressure, PT-201	Condensate in carbon manifold piping had not been drained sufficiently to allow airflow to continue at normal operating conditions.	Carbon manifold piping was drained. System was restarted and monitored for operation.
2/7/2014	2/7/14 12:07	2/7/14 12:58	0.0	21	VFD Fault	System was shut down due to critical system testing. Test of VFD fault alarm caused the system to shut down.	NA
3/1/2014	3/1/14 21:24	3/1/14 23:15	0.1	21	VFD Fault	System was shut down due to apparent electrical surge/outing at the ConMed facility.	System was restarted in Auto remotely.
3/4/2014	3/4/14 14:00	3/4/14 14:30	0.0	NA	OM&M Activities	OM&M Activities	NA
3/6/2014	3/6/14 14:40	3/6/14 19:20	0.2	23	High Pressure, PT-201	Condensate in carbon manifold piping had not been drained sufficiently to allow airflow to continue at normal operating conditions.	Carbon manifold piping was drained. System was restarted and monitored for operation.
1st Quarter (2014) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		1.0	89.0	99%			
4/27/2014	4/27/14 0:04	4/27/14 10:00	0.4	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
5/1/2014	5/1/14 20:57	5/2/14 7:49	0.5	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
6/16/2014	6/16/14 8:22	6/16/14 8:40	0.0	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
6/21/2014	6/21/14 6:45	6/21/14 10:30	0.2	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
6/28/2014	6/28/14 7:30	6/29/14 13:00	1.2	-	ConMed Shutdown	ConMed Scheduled Shutdown	System was off during ConMed Shutdown and restarted during a site visit on 6/29/2014.
2nd Quarter (2014) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		2.3	88.7	97%			
7/1/2014	7/1/14 18:02	7/1/14 18:50	0.0	ACFAIL	No description of ACFAIL	Possibly caused by loss of AC power	System was restarted in Auto remotely.
7/1/2014	7/1/14 20:06	7/1/14 21:40	0.1	ACFAIL	No description of ACFAIL	Possibly caused by loss of AC power	System was restarted in Auto remotely.
8/18/2014	8/18/14 3:55	8/18/14 7:33	0.2	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
9/3/2014	9/3/14 1:19	9/3/14 7:17	0.2	21	VFD Fault	VFD electrical connection was investigated and secured.	System was restarted in Auto from on site.
3rd Quarter (2014) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		0.5	91.5	99%			
11/4/2014	11/4/14 5:49	11/4/14 7:50	0.1	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated. Plan to increase fault time delay.	System was restarted in Auto remotely.
4th Quarter (2014) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		0.1	91.9	99.9%			
2014 % Run Time Summary (through December 31)		**Days Offline**	**Days Online**	**% Run Time**			
		3.9	361.1	99%			
1st Quarter (2015) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		0.0	90.0	100%			
4/29/2015	4/29/15 5:36	4/29/15 8:00	0.1	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
2nd Quarter (2015) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		0.1	90.9	100%			
8/5/2015	8/5/15 0:37	8/5/15 8:00	0.3	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
8/7/2015	8/7/15 18:56	8/7/15 23:00	0.2	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
9/12/2015	9/12/15 17:21	9/13/15 10:00	0.7	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
9/20/2015	9/20/15 20:48	9/20/15 21:10	0.0	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely.
3rd Quarter (2015) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		1.2	90.8	98.7%			
10/22/2015	10/22/15 20:10	10/26/15 14:30	3.8	21	VFD Fault	Cause of shutdown were voltage and current overloads. The cause of these overloads is currently being investigated.	System would not restart in Auto remotely, so Stantec visited the site and found that the blower breaker had been tripped. Upon starting the blower manually, audible evidence of a possible internal mechanical issue was heard, so the system was left off until 10/26 when Stantec returned with a representative of Oneida Electric. All wiring and connections related to the blower were checked for improper grounding, continuity, voltage, etc. and no unusual conditions were noted. The system was restarted on site, and operation appeared normal that afternoon and the morning of 10/27 during remote checks.
11/5/2015	11/5/15 9:21	11/5/15 9:40	0.0	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
11/19/2015	11/19/15 21:41	11/20/15 8:40	0.5	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
11/24/2015	11/24/15 8:41	11/24/15 8:45	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto on site. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
11/29/2015	11/29/15 9:26	11/29/15 12:30	0.1	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
12/5/2015	12/5/15 18:57	12/6/15 4:00	0.4	21	VFD Fault	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
12/8/2015	12/8/15 10:49	12/8/15 11:00	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto on site. Stantec continued to research options for further mechanical inspection, voltage/current monitoring, and/or possible blower/motor/VFD service or replacement.
12/9/2015	12/9/15 10:35	12/9/15 10:40	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec was asked to prepare a recommendation about how to respond to recent Process 20 and 21 alarms. Blower, motor, and VFD replacement were recommended.
12/16/2015	12/16/15 8:15	12/16/15 8:20	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec was in the process of making a change order for the replacement of the current blower, motor, and VFD in response to recent Process 20 and 21 alarms.
12/16/2015	12/16/15 10:27	12/16/15 11:00	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec was in the process of making a change order for the replacement of the current blower, motor, and VFD in response to recent Process 20 and 21 alarms.
12/18/2015	12/18/15 21:55	12/18/15 23:00	0.0	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System was restarted in Auto remotely. Stantec had submitted a change order for the replacement of the current blower, motor, and VFD in response to recent Process 20 and 21 alarms.

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
12/20/2015	12/20/15 18:46	12/21/15 14:00	0.8	20	Thermal Switch Overload	Cause of shutdown currently unknown and currently being investigated.	System would not restart in Auto remotely, so Stantec visited the site and found that the SSDS breaker had been tripped. Upon attempting to restart the system, it shut down with a Process 21 fatal alarm. Stantec then restarted the system in VFD bypass mode. Due to the increased vaccum resulting from operating without the VFD, Stantec adjusted bleed valve BV-202 to lower the Vaccum (VT-201) and Flow (FT-301) input values to approximately 88 IWC and 228 CFM, respectively. The Analog inputs were compared to OMM Table 3 and found to be within operating ranges, with the exception of VT-201 and FT-301. The alarm setpoints for these inputs were temporarily adjusted to 100 IWC and 240 CFM to avoid unncecesary alarms.The system was restarted on site, and operation appeared normal through the remainder of 2015.
4th Quarter (2015) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
		5.6	86.4	94%			
2015 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		6.9	358.1	98.1%			

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
3/1/2016	3/1/16 8:30	3/2/16 10:00	1.1	N/A	System temporarily shut down to replace the blower and VFD.	NA	NA
			0.0				
			0.0				
1st Quarter (2016) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through March 31)		1.1	89.9	98.8%			
2nd Quarter (2016) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through June 30)		0.0	91.0	100.0%			
9/24/2016	9/24/16 5:26	9/24/16 15:10	0.4	AC Fail	Power loss to system building	Area-wide power outage that impacted the ConMed facility	Stantec was not able to connect to the system remotely. A site visit was made and the system was restarted at 1510 hours.
9/27/2016	9/27/16 11:43	9/27/16 16:10	0.2	AC Fail	Power loss to system building	Area-wide power outage that impacted the ConMed facility	Stantec was not able to connect to the system remotely. A site visit was made and the system was restarted at 1610 hours.
3rd Quarter (2016) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through September 30)		0.6	91.4	99.36%			
4th Quarter (2016) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.0	92.0	100.0%			
2016 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		1.7	364.3	99.5%			
1st Quarter (2017) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through March 31)		0.0	90.0	100.0%			
2nd Quarter (2017) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through June 30)		0.0	91.0	100.0%			
7/1/2017	7/1/17 10:14	7/1/17 11:45	0.0	Process 21	VFD fault	VFD outside frequency range	restarted system
7/20/2017	7/20/17 18:08	7/21/17 10:10	0.8	Process 22	Pre-carbon heat exchanger exceeded temperature limit	Temperature rose above 115°F	Tested system, but heat exchanger was not functioning properly. Aztech found that the TT-301 Hi Analog Input was set at 300°F, reset to 100°F. System operating normal.
3rd Quarter (2017) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through September 30)		0.8	91.2	99.2%			
10/9/2017	10/9/17	10/9/17	0.2	No Alarm	PLC was not energized	Backup battery failure	No morning SSDS status report was received. Could not remotely connect to SSDS PLC. Tetra Tech found system to be shut down upon arrival to site. Main power on, Auxiliary Power supply was off and PLC not energized. TT turned on Aux. Power supply, and that energized PLC. TT put SSDS through startup sequence, and it turned on the SSDS. Monitored system for 30 min prior to leaving site. TT monitored the system remotely and it operated normally throughout the day.
10/23/2017	10/23/17	10/23/17	0.3	No Alarm	PLC was not energized	Backup battery failure	No morning SSDS status report was received. TT observed the system shutdown and the Main Power on, but the Aux. Power supply was off and PLC was not energized. TT attempted to turn on the backup battery, but it would not energize. TT plugged the PLC directly into an outlet, and that energized the PLC. TT put the SSDS through startup sequence, and it turned on the SSDS. Monitored system for 30 min, and it operated normally. Backup battery was replaced on 10/25/17.
11/7/2017	11/7/17 13:50	11/7/17 19:20	0.2	Process 21 and Shutdown 80	The Variable Frequency Drive, VFD-200 had no power	Bad power cable or fuse	Tetra Tech's troubleshooting of the system revealed a circuit breaker in the off position. Tetra Tech engaged the circuit breaker to the on position, which powered up the VFD. Tetra Tech put the SSDS through a start-up sequence and the system operated normally.
12/28/2017	12/28/17 12:07	12/28/17 12:50	0.0	Process 23	High Post-Blower Pressure	Post blower pressure exceed 30 IWC	Remotely restarted system and monitored
12/28/2017	12/28/17 19:31	12/29/17 9:00	0.6	Process 23	High Post-Blower Pressure	Post blower pressure exceed 30 IWC	Remotely restarted the system, mobilized to the SSDS and drained the carbon vessels and air flow manifold
4th Quarter (2017) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		1.3	90.7	98.6%			
2017 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		2.1	362.9	99.4%			
1st Quarter (2018) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through March 31)		0.0	90.0	100.0%			
4/2/2018	4/2/18 17:50	4/2/18 18:33	0.03	Process 22	High Pre-Carbon Temperature	Incorrect alarm setting	TT-301 Hi Hi alarm was triggered after TT-301 exceeded 115° F. Tetra Tech remotely logged into ProView and observed that the TT-301 Hi was set at 300 ºF, above the normal setting of 100 ºF that should have initiated the operation of the heat exchanger and cooled the SSDS. TT-301 Hi setting was reset at 100 ºF and the system operated normally.
2nd Quarter (2018) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through June 30)		0.03	90.97	99.97%			
3rd Quarter (2018) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through September 30)		0.0	92.0	100.0%			
4th Quarter (2018) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.0	92.0	100.0%			
2018 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.03	364.97	99.99%			
2/20/2019	2/20/19 9:20	2/20/19 12:00	0.10	No Alarm	Unknown	Possible power or data line fault.	Tetra Tech was on site with the client and noticed the system was off, for an unknown reason (no alarms were present). System was restarted and operated normally.
1st Quarter (2019) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through March 31)		0.10	89.90	99.88%			
5/25/2019	5/25/19 6:57	5/25/19 14:00	0.29	AC Fail	Temporary loss of power.	Temporary loss of power due to inclement weather.	Tetra Tech was not able to connect to the system remotely. A site visit was made and the system was restarted.
6/19/2019	6/19/19 10:15	6/19/19 17:30	0.31	AC Fail	Temporary loss of power.	Unknown.	Tetra Tech was not able to connect to the system remotely. A site visit was made and the system was restarted.
2nd Quarter (2019) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through June 30)		0.60	90.40	99.34%			
8/8/2019	8/8/19 9:40	8/8/19 11:20	0.07	10	High Post-Blower Temperature	Temperature reached 225°F (High Temperature Setpoint)	A site visit was made and the cause of the high tempeature was investigated, no issues identified. The system was restarted.
8/17/2019	8/17/19 0:30	8/17/19 14:00	0.56	10	High Post-Blower Temperature	Temperature reached 225°F (High Temperature Setpoint)	A site visit was made and the cause of the high tempeature was investigated, no issues identified. The system was restarted.
3rd Quarter (2019) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through September 30)		0.63	91.37	99.32%			
4th Quarter (2019) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.00	92.00	100.00%			
2019 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		1.33	363.67	99.63%			

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
1st Quarter (2020) % Run Time Summary (through March 31)		**Days Offline** 0.00	**Days Online** 91.00	**% Run Time** 100.00%			
2nd Quarter (2020) % Run Time Summary (through June 30)		**Days Offline** 0.00	**Days Online** 91.00	**% Run Time** 100.00%			
7/16/2020	7/16/20 23:53	7/17/20 7:30	0.32	10	High Post-Blower Temperature	Temperature reached 230°F (High Temperature Setpoint)	The system was restarted remotely and monitored.
7/20/2020	7/20/20 22:34	7/21/20 7:30	0.38	10	High Post-Blower Temperature	Temperature reached 230°F (High Temperature Setpoint)	The system was restarted remotely and monitored.
7/23/2020	7/23/20 12:03	7/23/20 16:05	0.16	10	High Post-Blower Temperature	Temperature reached 230°F (High Temperature Setpoint)	A site visit was made and the cause of the high tempeature was investigated, no issues identified. The system was restarted with a change in the blower frequency from 50 to 46 Hz.
3rd Quarter (2020) % Run Time Summary (through September 30)		**Days Offline** 0.86	**Days Online** 91.14	**% Run Time** 99.07%			
4th Quarter (2020) % Run Time Summary (through December 31)		**Days Offline** 0.00	**Days Online** 91.00	**% Run Time** 100.00%			
2020 % Run Time Summary (through December 31)		**Days Offline** 0.86	**Days Online** 364.14	**% Run Time** 99.76%			
1st Quarter (2021) % Run Time Summary (through March 31)		**Days Offline** 0.00	**Days Online** 90.00	**% Run Time** 100.00%			
4/9/2021	4/9/21 15:15	4/9/21 16:30	0.05	AC Fail	Temporary loss of power.	Temporary loss of power due to inclement weather.	A site visit was made and the system was restarted.
2nd Quarter (2021) % Run Time Summary (through June 30)		**Days Offline** 0.05	**Days Online** 90.95	**% Run Time** 99.95%			
3rd Quarter (2021) % Run Time Summary (through September 30)		**Days Offline** 0.00	**Days Online** 92.00	**% Run Time** 100.00%			
4th Quarter (2021) % Run Time Summary (through December 31)		**Days Offline** 0.05	**Days Online** 91.95	**% Run Time** 99.95%			
12/3/2021	12/3/21 18:00	12/3/21 19:00	0.05	13	Heat Exchanger Motor Fault	Faulty HOA switch.	A site visit was made, replaced switch and the system was restarted.
2021 % Run Time Summary (through December 31)		**Days Offline** 0.10	**Days Online** 364.90	**% Run Time** 99.97%			
1st Quarter (2022) % Run Time Summary (through March 31)		**Days Offline** 0.00	**Days Online** 90.00	**% Run Time** 100.00%			
2nd Quarter (2022) % Run Time Summary (through June 30)		**Days Offline** 0.00	**Days Online** 91.00	**% Run Time** 100.00%			
3rd Quarter (2022) % Run Time Summary (through September 30)		**Days Offline** 0.01	**Days Online** 91.99	**% Run Time** 99.99%			
7/11/2022	7/11/22 9:15	7/11/22 9:30	0.01	AC Fail	Temporary loss of power.	Temporary loss of power due to inclement weather.	Field technician was already on-site and the system was restarted.
4th Quarter (2022) % Run Time Summary (through December 31)		**Days Offline** 0.00	**Days Online** 92.00	**% Run Time** 100.00%			
2022 % Run Time Summary (through December 31)		**Days Offline** 0.01	**Days Online** 364.99	**% Run Time** 99.997%			
1st Quarter (2023) % Run Time Summary (through March 31)		**Days Offline** 1.41	**Days Online** 88.59	**% Run Time** 98.43%			
2/16/2023	2/16/23 0:38	2/16/23 13:30	0.54	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	A site visit was made, checked switch and the system was restarted.
3/10/2023	3/10/23 9:15	3/10/23 9:20	0.01	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	The system was restarted remotely and monitored.
3/21/2023	3/21/23 1:55	3/21/23 8:00	0.25	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	The system was restarted remotely and monitored.
3/28/2023	3/28/23 0:58	3/28/23 7:30	0.27	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	The system was restarted remotely and monitored.
3/29/2023	3/29/23 3:56	3/29/23 12:00	0.34	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	A site visit was made, checked switch and the system was restarted.
2nd Quarter (2023) % Run Time Summary (through June 30)		**Days Offline** 8.84	**Days Online** 82.16	**% Run Time** 90.29%			
4/3/2023	4/3/23 19:41	4/3/23 21:00	0.05	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	The system was restarted remotely and monitored.
4/7/2023	4/7/23 4:35	4/7/23 10:30	0.25	VFDRUN	Variable Frequency Drive Fault.	Faulty HOA switch.	The system was restarted remotely and monitored.
4/25/2023	4/25/23 12:03	4/25/23 12:27	0.02	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/3/2023	5/3/23 13:32	5/3/23 15:11	0.07	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	Technician on-site to perform monthly inspection and re-started the system.
5/4/2023	5/4/23 12:50	5/4/23 13:11	0.01	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/5/2023	5/5/23 11:43	5/5/23 13:52	0.09	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/6/2023	5/6/23 21:10	5/7/23 10:07	0.54	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/9/2023	5/9/23 2:06	5/9/23 8:45	0.28	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/11/2023	5/11/23 3:31	5/11/23 8:27	0.21	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/12/2023	5/12/23 10:23	5/12/23 12:27	0.09	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/13/2023	5/13/23 1:31	5/13/23 10:30	0.37	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/15/2023	5/15/23 13:12	5/15/23 14:18	0.05	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/16/2023	5/16/23 22:03	5/17/23 9:00	0.46	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/17/2023	5/17/23 19:06	5/17/23 20:30	0.06	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/18/2023	5/18/23 17:22	5/18/23 18:25	0.04	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/19/2023	5/19/23 16:50	5/19/23 19:00	0.09	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/21/2023	5/21/23 23:14	5/22/23 8:50	0.40	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/22/2023	5/22/23 19:03	5/22/23 20:00	0.04	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/24/2023	5/24/23 10:20	5/24/23 11:40	0.06	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
5/27/2023	5/27/23 19:13	5/28/23 9:10	0.58	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/29/2023	5/29/23 23:15	5/30/23 10:00	0.45	VFDRUN	Variable Frequency Drive Fault.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
5/31/2023	5/31/23 7:58	5/31/23 13:00	0.21	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	A site visit was performed and the system was re-started.
6/1/2023	6/1/23 8:15	6/1/23 8:45	0.02	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
6/2/2023	6/2/23 22:57	6/3/23 9:11	0.43	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/3/2023	6/3/23 14:15	6/3/23 15:04	0.03	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/4/2023	6/4/23 20:16	6/5/23 8:54	0.53	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/5/2023	6/5/23 17:36	6/5/23 18:02	0.02	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/6/2023	6/6/23 18:00	6/6/23 18:23	0.02	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/7/2023	6/7/23 14:22	6/7/23 16:52	0.10	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/10/2023	6/10/23 14:18	6/10/23 17:18	0.13	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/11/2023	6/11/23 19:51	6/11/23 20:18	0.02	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/12/2023	6/12/23 21:58	6/12/23 22:15	0.01	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/13/2023	6/13/23 18:27	6/13/23 19:10	0.03	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/14/2023	6/14/23 22:18	6/15/23 9:00	0.45	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/16/2023	6/16/23 9:25	6/16/23 10:34	0.05	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/17/2023	6/17/23 18:33	6/17/23 19:02	0.02	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/19/2023	6/19/23 13:49	6/19/23 14:20	0.02	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/21/2023	6/21/23 22:05	6/22/23 9:37	0.48	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/22/2023	6/22/23 22:06	6/23/23 9:10	0.46	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/24/2023	6/24/23 14:00	6/24/23 14:20	0.01	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/25/2023	6/25/23 23:13	6/26/23 11:04	0.49	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/26/2023	6/26/23 16:58	6/26/23 17:19	0.01	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/27/2023	6/27/23 21:09	6/28/23 9:15	0.50	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/28/2023	6/28/23 13:36	6/28/23 14:12	0.03	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
6/30/2023	6/30/23 21:37	7/1/23 11:00	0.56	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
3rd Quarter (2023) % Run Time Summary (through Septemer 30)		**Days Offline**	**Days Online**	**% Run Time**			
		20.60	71.40	77.61%			
7/3/2023	7/3/2023 23:45	7/4/23 11:45	0.50	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/5/2023	7/5/2023 2:28	7/5/23 9:11	0.28	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/6/2023	7/6/2023 1:52	7/6/23 9:30	0.32	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/8/2023	7/8/2023 2:10	7/8/23 11:00	0.37	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/9/2023	7/9/2023 18:54	7/10/23 9:02	0.59	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/10/2023	7/10/2023 17:57	7/11/23 9:23	0.64	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/11/2023	7/11/2023 23:22	7/12/23 9:52	0.44	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/12/2023	7/12/2023 21:11	7/13/23 9:15	0.50	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/13/2023	7/13/2023 22:27	7/14/23 9:18	0.45	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/14/2023	7/14/2023 23:55	7/15/23 10:15	0.43	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/17/2023	7/17/2023 18:27	7/17/23 19:10	0.03	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/18/2023	7/18/2023 2:02	7/18/23 9:00	0.29	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/18/2023	7/18/2023 23:11	7/19/23 10:15	0.46	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/19/2023	7/19/2023 20:33	7/20/23 9:05	0.52	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/23/2023	7/23/2023 1:38	7/23/23 9:20	0.32	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
7/23/2023	7/23/2023 22:05	7/24/23 9:40	0.48	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/24/2023	7/24/2023 22:06	7/25/23 9:10	0.46	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/25/2023	7/25/2023 22:37	7/26/23 9:20	0.45	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/29/2023	7/29/2023 3:36	7/29/23 11:04	0.31	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
7/30/2023	7/30/2023 19:19	7/31/23 12:15	0.71	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/2/2023	8/2/2023 17:58	8/3/23 9:15	0.64	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/6/2023	8/6/2023 2:36	8/6/23 11:15	0.36	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/6/2023	8/6/2023 20:12	8/7/23 9:15	0.54	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	Technician on-site to perform monthly inspection and re-started the system.
8/8/2023	8/8/2023 1:56	8/8/23 9:15	0.30	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/8/2023	8/8/2023 20:54	8/9/23 9:05	0.51	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/10/2023	8/10/2023 19:40	8/11/23 9:15	0.57	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/11/2023	8/11/2023 23:06	8/12/23 11:45	0.53	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/14/2023	8/14/2023 18:30	8/15/23 9:15	0.61	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/15/2023	8/15/2023 19:32	8/16/23 8:40	0.55	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/16/2023	8/16/2023 20:46	8/17/23 9:05	0.51	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/18/2023	8/18/2023 7:10	8/18/23 8:15	0.05	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/19/2023	8/19/2023 5:39	8/19/23 12:15	0.27	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/21/2023	8/21/2023 21:54	8/22/23 9:15	0.47	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/22/2023	8/22/2023 17:46	8/23/23 9:10	0.64	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/23/2023	8/23/2023 20:18	8/24/23 13:50	0.73	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	Control conrractor and technician on-site to replace VFD and re-started the system.
8/24/2023	8/24/2023 18:35	8/25/23 9:00	0.60	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/28/2023	8/28/2023 21:46	8/29/23 9:05	0.47	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/29/2023	8/29/2023 17:56	8/30/23 9:15	0.64	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/30/2023	8/30/2023 18:30	8/31/23 8:45	0.59	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
8/31/2023	8/31/2023 21:05	9/1/23 9:15	0.51	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
9/1/2023	9/1/2023 17:23	9/2/23 12:10	0.78	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
9/2/2023	9/2/2023 20:05	9/3/23 11:15	0.63	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
9/4/2023	9/4/2023 19:16	9/5/23 8:30	0.55	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
4th Quarter (2023) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		8.72	83.28	90.52%			
10/18/2023	10/18/2023 14:19	10/18/23 14:30	0.01	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/20/2023	10/20/2023 6:19	10/20/23 9:30	0.13	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/21/2023	10/21/2023 19:12	10/21/23 20:00	0.03	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/24/2023	10/24/2023 4:33	10/24/23 9:00	0.19	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/25/2023	10/25/2023 18:29	10/26/23 9:10	0.61	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/26/2023	10/26/2023 10:47	10/26/23 15:30	0.20	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/27/2023	10/27/2023 4:42	10/27/23 9:05	0.18	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/28/2023	10/28/2023 2:01	10/28/23 11:00	0.37	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/29/2023	10/29/2023 16:04	10/29/23 18:00	0.08	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/30/2023	10/30/2023 4:34	10/30/23 9:00	0.18	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.
10/31/2023	10/31/2023 19:36	11/1/23 11:00	0.64	24	Low-Post Blower Pressure.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	Technician on-site to perform monthly inspection and re-started the system.
11/1/2023	11/1/2023 19:55	11/2/23 9:00	0.55	22	High-Pre Carbon Temperature.	Pressure was below 0.5 inches of water (Low-Post Blower Pressure Setpoint)	The system was restarted remotely and monitored.

Table A-2. Sub-Slab Depressurization System Operation Summary
Former Lockheed Martin French Road Facility, Utica, New York

Date	Date/Time			Process	Description	Suspected Cause of Alarm	Corrective Action
	Shutdown	Online	Off (days)				
11/2/2023	11/2/2023 13:10	11/2/23 13:45	0.02	21	System shutdown due to VFD off.	Cause of shutdown currently unknown and currently being investigated.	The system was restarted remotely and monitored.
11/3/2023	11/3/2023 19:42	11/4/23 11:00	0.64	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/7/2023	11/7/2023 2:24	11/7/23 9:00	0.28	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/8/2023	11/8/2023 3:16	11/8/23 8:45	0.23	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/9/2023	11/9/2023 2:01	11/9/23 8:50	0.28	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/10/2023	11/10/2023 21:10	11/11/23 11:15	0.59	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/13/2023	11/13/2023 22:47	11/14/23 9:00	0.43	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/14/2023	11/14/2023 22:24	11/15/23 8:15	0.41	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/15/2023	11/15/2023 20:15	11/16/23 8:30	0.51	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/16/2023	11/16/2023 19:20	11/17/23 10:00	0.61	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/20/2023	11/20/2023 18:56	11/21/23 8:20	0.56	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/22/2023	11/22/2023 19:54	11/23/23 11:15	0.64	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
11/25/2023	11/25/2023 2:21	11/25/23 10:40	0.35	16	High vacuum alarm.	Vacuum reached 30 inches of water (High Vacuum Setpoint)	The system was restarted remotely and monitored.
1st Quarter (2024) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through March 31)		0.00	91.00	100.00%			
2nd Quarter (2024) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through June 30)		0.00	91.00	100.00%			
3rd Quarter (2024) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through July 31)		0.00	91.00	100.00%			
4th Quarter (2024) % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.93	91.07	98.99%			
Date	**Date/Time**			**Process**	**Description**	**Suspected Cause of Alarm**	**Corrective Action**
	Shutdown	**Online**	**Off (days)**				
10/23/2024	10/23/2024 13:35	10/24/2024 12:00	0.93	10	High Post-Blower Temperature	ConMed informed us of a water line leak on 10-21-2024. We responded to the site on 10-21-2024 and shut down SDS-3 and SDS-5 because of water and a damaged floor. Having the two points shutdown caused lower flow which in turn caused a high temperature alarm on 10-23-2024.	A site visit was performed on 10-24-2024 to restart the system and partially reopen SDS-3. SDS-5 remained shut down until the water pipe and area floor repair was completed
2024 % Run Time Summary		**Days Offline**	**Days Online**	**% Run Time**			
(through December 31)		0.93	364.07	99.75%			

Table A-3. Combined Effluent Air Sample Analytical Results
Former Lockheed Martin French Road Facility, Utica, New York

Sample Location	Pre-Carbon SP-301			SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303	SP-303
Date	**4/8/2020**	**7/27/2020**	**10/6/2020**	**1/6/2021**	**4/8/2021**	**7/9/2021**	**10/4/2021**	**1/10/2022**	**4/5/2022**	**7/15/2022**	**10/31/2022**	**1/4/2023**	**4/14/2023**	**7/13/2023**	**10/7/2023**	**3/1/2024**	**4/24/2024**	**7/1/2024**	**10/8/2024**
Volatile Organic Compounds[1]	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**	**Result (µg/m3) Q**
1,1,1-Trichloroethane	< 2.50	< 2.40	< 2.40	< 2.30	**2.4**	<2.7	<2.3	<2.2	<2.2	<2.3	<2.3	<1.9	**3.3**	**3**	**1.7**	**1.3**	**1.4**	**1.3**	**1.22**
1,1,2,2-Tetrachloroethane	< 1.20	< 1.20	< 1.20	< 1.50	< 1.10	< 1.10	< 1.10	< 2.80	< 2.80	< 2.80	< 3.00	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.38
1,1,2-Trichloroethane	< 1.60	< 1.20	< 1.20	< 1.20	< 1.10	< 1.10	< 1.10	< 2.20	< 2.20	< 2.10	< 1.20	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93	< 1.89
1,1-Dichloroethane	< 1.80	< 1.80	< 1.80	< 1.70	< 1.70	< 1.70	< 1.70	< 1.60	< 1.60	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.40
1,1-Dichloroethene	< 1.80	< 1.80	< 1.80	< 1.70	< 1.60	< 1.60	< 1.70	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.37
1,2,4-Trichlorobenzene	< 16.90	< 16.90	< 16.90	< 15.80	<15.2	<15.2	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<15.8	<1.5	< 2.57
1,2,4-Trimethylbenzene	< 2.20	< 2.20	< 2.20	< 2.10	**3.2**	**9.3**	**2.6**	<2.0	<2.0	<2.0	<2.0	**1.9**	**1.9**	**1.1**	<0.98	**0.63**	<0.66	**2**	**0.934**
1,2-Dibromoethane	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 2.66
1,2-Dichlorobenzene	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 6.40	< 6.20	< 6.20	< 6.20	< 6.20	< 5.10	< 5.10	< 5.10	< 5.10	< 5.10	< 5.10	< 5.10	< 2.08
1,2-Dichloroethane	< 0.92	< 0.92	< 0.92	< 0.86	< 0.86	< 0.86	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 0.81	< 0.81	< 0.81	< 0.81	< 1.40
1,2-Dichloropropane	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 0.92	< 0.92	< 0.92	< 0.92	< 1.60
1,3,5-Trimethylbenzene	< 2.20	< 2.20	< 2.20	< 1.70	**3.6**	**5.7**	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	**1.6**	<0.49	<0.98	<0.98	<0.98	**33**	< 1.70
1,3-butadiene	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.44	< 0.44	< 0.44	< 0.44	< 0.77
1,3-Dichlorobenzene	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 1.20	< 1.20	< 1.20	< 1.20	< 2.08
1,4-Dichlorobenzene	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 6.90	< 1.20	< 1.20	< 1.20	< 1.20	< 2.08
1,4-Dioxane	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 6.10	< 1.25
2-Chlorotoluene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,2,4-trimethylpentane	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 1.62
4-ethyltoluene	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	< 5.60	**3.3**	< 1.70
4-Isopropyltoluene	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	NS
Acetone	<13.5	**32.5**	**33.6**	**46.0**	**69.6**	**102.0**	**48.6**	**34.3**	**31.6**	**82.5**	**43**	**24.3**	**64**	**58**	**41**	**45**	**57**	**38**	**18.8**
Allyl chloride	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	NS
Benzene	< 0.73	**3.1**	**1.1**	**1.1**	**9.7**	**288**	<0.68	<0.66	**2.1**	**12.3**	< 0.7	**9.1**	**1.2**	<0.32	**0.92**	**0.45**	<0.43	**0.64**	< 1.11
Benzyl chloride	< 5.90	< 5.90	< 5.90	< 5.50	< 5.50	< 5.50	< 5.50	< 5.30	< 5.30	< 5.30	< 5.70	< 5.70	< 5.70	< 5.70	< 5.70	< 5.70	< 5.70	< 5.70	< 1.79
Bromodichloromethane	< 3.00	< 3.00	< 3.00	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	< 2.90	**0.98**	<1.3	<1.3	<1.3	<1.3	< 2.32
Bromoform	< 11.80	< 11.80	< 11.80	< 11.00	< 11.00	< 11.00	< 11.00	< 11.00	< 11.00	< 11.00	< 11.30	< 11.30	< 11.30	< 11.30	< 2.10	< 2.10	< 2.10	< 2.10	< 3.58
Bromomethane	< 1.80	**1.9**	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	**9.8**	< 1.7	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.34
Carbon disulfide	< 1.40	**1.6**	<1.4	<1.4	**130**	**5.9**	**31.8**	<1.3	**14.5**	**16.9**	< 1.4	**2.5**	<1.6	<1.6	<6.2	<6.2	<6.2	<6.2	< 1.08
Carbon tetrachloride	< 2.90	< 2.80	< 2.80	< 2.70	< 2.70	< 2.70	< 2.70	< 2.60	< 2.60	< 2.60	< 2.60	< 2.60	< 2.60	< 2.60	< 1.30	< 1.30	< 1.30	< 1.30	< 2.18
Chlorobenzene	< 2.10	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 0.92	< 0.92	< 0.92	< 0.92	< 1.59
Chloroethane	< 1.20	< 1.20	< 1.20	< 1.10	< 1.10	< 1.10	< 1.10	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 2.70	< 0.53	< 0.53	< 0.53	< 0.53	< 0.91
Chloroform	**6**	**11.2**	**13.6**	**11.7**	**20.1**	**36.3**	**39.5**	**14**	**12.4**	**59.7**	**42**	**5.8**	**27**	**56**	**25**	**17**	**14**	**34**	**19.6**
Chloromethane	< 0.94	**1.3**	<0.9	**1.1**	<1.1	<1.1	<1.1	<1.1	<0.96	**1.9**	< 0.9	**1.1**	**1.4**	**0.65**	<0.83	**0.64**	**0.65**	<0.83	**0.586**
cis-1,2-Dichloroethene	< 1.80	< 1.80	< 1.70	< 1.70	< 1.70	< 1.70	< 1.70	< 1.60	< 1.60	< 1.90	< 1.70	<1.7	**2.1**	**1.6**	**1.5**	**1.1**	**1.1**	**0.9**	**1.13**
cis-1,3-Dichloropropene	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	< 4.90	< 4.70	< 4.70	< 4.70	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 1.57
Cyclohexane	< 3.90	**10.9**	**7.8**	**7.5**	**6.7**	<4.2	<4.2	**10.9**	<4.0	**6.7**	**4.1**	<2.9	<2.9	<2.9	<2.9	**2.3**	**2.1**	**170**	**1.2**
Dibromochloromethane	< 3.90	< 3.90	< 3.90	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 3.60	< 2.95
Ethyl acetate	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60	< 1.50	< 1.50	**1.9**	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	**17**	<4.8	<7.2	< 3.12
Ethylbenzene	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80	**2.8**	< 1.50
Freon 11	**3.8**	<2.5	<2.5	<2.4	**2.4**	**5.7**	<2.4	<2.4	<2.6	**3.5**	< 2.5	**3.9**	**3.6**	<2.2	<4.5	<2.2	<2.2	<2.2	NS
Freon 113	< 2.60	< 3.40	< 3.40	< 3.30	< 3.30	**4.1**	<3.3	<3.2	<3.6	**7.2**	< 3.4	< 2.6	< 2.6	< 2.6	< 6.1	< 6.1	< 6.1	< 6.1	**1.63**
Freon 114	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 2.40	< 1.40	< 1.40	< 1.40	< 1.40	< 2.42
Freon 12	**3.6**	**4.7**	**6.4**	**4.3**	**4**	**4.6**	**6.9**	**4.3**	**3.3**	**6.6**	**5.6**	**3.3**	**6.5**	**2.5**	**3.8**	<0.49	**3.4**	**2.5**	NS
Freon 22	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	NS
Heptane	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	**3**	<1.9	<1.9	**3.2**	**1.6**	**4.1**	**1.2**	**2**	**1.8**	**6**	**9.5**	**3.25**
Hexachloro-1,3-butadiene	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 12.10	< 3.69
Hexane	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 4.00	< 1.40	< 1.40	< 1.40	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.22
Isopropyl alcohol	**388**	**417**	**275**	**370**	**516**	**439**	**285**	**279**	**200**	**548**	**251**	**97.2**	**340**	**220**	**250**	**200**	**220**	**160**	**212**
m&p-Xylene	< 1.50	**7.2**	<3.8	<3.7	**15.4**	**90.8**	<3.7	<3.6	**6.9**	<4.2	<3.8	**4.9**	**3.3**	**0.96**	<1.7	**0.92**	<1.2	**6.30**	< 3.01
Methyl Butyl Ketone	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 7.00	< 1.42
Methyl Ethyl Ketone	<6.7	<6.7	<6.7	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	**9.8**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.29**
Methyl Isobutyl Ketone	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 9.30	< 3.54
Methyl methacrylate	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	NS
Methyl tert-butyl ether	< 8.20	< 8.20	< 8.20	< 8.20	< 8.20	< 8.20	< 8.20	< 7.40	< 7.40	< 8.60	< 8.60	< 8.60	< 8.60	< 8.60	< 8.60	< 8.60	< 8.60	< 8.60	< 1.25
Methylene chloride	**27.9**	**147.0**	**84.9**	**107.0**	**102.0**	**39.6**	**33.6**	**16.0**	**116**	**78**	**31.5**	**19**	**57**	**36**	**33**	**55**	**27**	**25**	**197**
Naphthalene	< 4.50	< 4.50	< 4.50	< 4.50	< 4.50	< 4.50	< 4.50	< 10.80	< 10.80	< 6.30	< 6.30	< 6.30	< 6.30	< 6.30	< 6.30	< 6.30	< 6.30	< 6.30	< 1.81
n-Butane	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
n-Butylbenzene	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	**0.473**
n-Propylbenzene	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	< 4.20	NS
o-Xylene	< 1.50	**3**	<1.9	<1.9	<1.9	**17.8**	<1.9	<1.9	**2.4**	<2.1	<1.9	**1.6**	**1.5**	**0.43**	<0.87	<0.87	<0.87	**32**	NS
Propylene	<0.78	<0.78	**1.5**	**1.1**	**1.1**	**2.6**	<1.8	<1.8	<2.0	<2.0	<2.0	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	NS
sec-Butylbenzene	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	< 4.70	NS
Styrene	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	<2.00	<2.00	<2.00	**0.515**
tert-Butyl alcohol	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 5.20	< 2.62
tert-Butylbenzene	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90	NS
Tetrachloroethylene	**56.7**	**112**	**115**	**118**	**88.9**	**88.5**	**111**	**69.1**	**80.8**	**133**	**75.1**	**16.1**	**51**	**120**	**84**	**59**	**87**	**78**	**71.2**
Tetrahydrofuran	<1.3	<1.3	<1.3	**22.5**	**2.4**	**2.7**	**2.5**	<1.2	<1.2	<1.2	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	< 2.55
Toluene	**2.8**	**7.8**	**2**	**3.9**	**11.3**	**207**	**4**	**2.4**	**8.7**	**12.4**	**2.7**	**3.4**	**6.3**	**2.1**	**3.5**	**1.6**	**0.81**	**2.3**	**1.11**
trans-1,2-Dichloroethene	< 0.62	< 1.80	< 1.80	< 1.70	< 1.70	< 1.70	< 1.70	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	**0.53**	<0.79	< 1.37
trans-1,3-Dichloropropene	< 1.60	< 1.60	< 1.60	< 1.90	< 1.90	< 1.90	< 1.90	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	< 1.57
Trichloroethene	**9.9**	**16.1**	**15**	**14.6**	**11.4**	**15.5**	**12.2**	**10.9**	**7.8**	**15.4**	**10.6**	**4.1**	**9.7**	**12**	**9.5**	**7.3**	**7.2**	**11**	**9.94**
Vinyl acetate	< 1.60	< 1.60	< 1.60	< 1.50	< 1.50	< 1.50	< 1.50	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 7.00	< 7.00	< 7.00	NS
Vinyl Bromide	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50	< 1.51
Vinyl chloride	< 0.58	< 0.57	< 0.56	< 0.55	< 0.55	< 0.62	< 0.55	<1.1	<0.6	<0.61	<0.56	< 0.44	**0.64**	<0.26	<0.51	<0.26	<0.26	<0.51	< 0.88
Cumulative VOCs (µg/m3)[4]	**498.70**	**777.30**	**553.50**	**709.50**	**1,000.20**	**1,365.10**	**577.70**	**443.90**	**486.50**	**995.80**	**478.60**	**199.80**	**586.14**	**516.52**	**456.88**	**411.04**	**428.19**	**612.54**	**521.79**
Target VOCs (µg/m3)[5]	**66.60**	**128.10**	**130.00**	**133.00**	**100.30**	**104.00**	**123.20**	**80.00**	**88.60**	**148.40**	**85.70**	**20.20**	**63.44**	**133.60**	**95.00**	**67.40**	**95.83**	**89.90**	**82.27**

Notes:

1. Samples analyzed for VOCs using USEPA Method TO-15.
2. Cumulative VOCs calculated using only detected concentrations.
3. Target VOCs calculated using only detected concentrations of the following compounds: 1,1-dichloroethene, cis-1,2-dichloroethene, tetrachloroethylene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride.
4. Due to COVID-19, a combined influent sample was collected during the April 2020 quarterly event.
5. A pre-carbon vapor sample was inadvertenly not collected on 7/7/20. The combined influent sample was collected on July 27, 2020.
6. As per the NYSDEC approved OM&M optimization, a combined influent vapor sample will be collected going forward.

-**BOLD** indicates a detected compound.

Definitions:

< - less than reporting limit listed
J - Indicates that the result was less than the RL, but greater than or equal to the MDL and the concentration is an estimate.
B - Indicates that the compound was also identified in the method blank and sample.
D - Indicates that the sample results are obtained from a dilution.
E - Indicates that the result exceeded the calibration range.
U - Indicates that compound was analyzed for but was not detected.
NS - Not Sampled For
Q - data qualifier
µg/m^3 - micrograms per cubic meter
VOC - Volatile Organic Compounds

Table A-4 Sub-Slab Depressurization System Cumulative Mass Removed, Former Lockheed Martin French Road Facility, Utica, New York

Date	Total Target VOC Mass Removal Rate Per Reporting Period (g/day)[3]	Days in Reporting Period	Target VOC Mass Removed Per Reporting Period (lb)[4]	Cumulative Target VOC Mass Removed (lb)[5]	Combined Influent[10]			Mid-Carbon			Combined Effluent			Target VOC Mass Emitted Per Reporting Period (lb)[6]	Cumulative Target VOC Mass Emitted (lb)[5]	Target VOC Mass Adsorption Rates			
					Cumulative Target VOCs (µg/m^3)[1]	Flow Rate (scfm)	Target VOC Mass Per Day (g/day)	Cumulative Target VOCs (µg/m^3)[1]	Flow Rate (scfm)	Target VOC Mass Per Day (g/day)	Cumulative Target VOCs (µg/m^3)[1]	Flow Rate (scfm)[2]	Target VOC Emission Rate (g/day)			Percentage Adsorbed by Lead Carbon Per Reporting Period (%)	Percentage Adsorbed by 2nd Carbon Per Reporting Period (%)	Cumulative Target VOC Mass Adsorbed By Carbon (lb)	Percentage Adsorbed by Both Carbons Per Reporting Period (%)
07/17/08	10.220	1	0.023	0.023	-	-	-	-	-	-	1.700	102	0.007	0.000	0.000	-	-	0.023	99.93
08/13/08	0.432	27	0.317	0.340	-	-	-	-	-	-	0.000	55	0.000	0.000	0.000	-	-	0.339	100.00
09/11/08	2.029	29	0.079	0.418	-	-	-	-	-	-	1.000	78	0.003	0.000	0.000	-	-	0.418	99.84
10/10/08	3.154	29	0.166	0.584	-	-	-	-	-	-	2.890	81	0.010	0.000	0.001	-	-	0.583	99.70
04/07/09	1.724	179	0.963	1.546	-	-	-	-	-	-	0.000	91	0.000	0.002	0.003	-	-	1.544	100.00
07/01/09	2.260	85	0.373	1.920	-	-	-	-	-	-	0.760	90	0.003	0.000	0.003	-	-	1.917	99.88
10/9/2009[7]	2.576	100	0.533	2.453	-	-	-	371.160	99	1.498	2.170	99	0.009	0.001	0.004	41.84	99.42	2.449	99.66
12/31/2009[8]	2.192	83	0.436	2.889	-	-	-		-	-	-	-	0.010	0.002	0.006	-	-	2.883	99.56
01/21/10	1.809	21	0.102	2.990	267.700	93	1.015	3.160	93	0.012	2.760	93	0.010	0.000	0.006	99.34	12.66	2.984	99.42
04/07/10	0.786	76	0.217	3.208	162.000	119	0.786	2.400	119	0.012	2.600	119	0.013	0.002	0.008	98.52	-8.33	3.200	98.40
7/8/2010	1.621	92	0.244	3.452	283.14	86	0.993	11	86	0.039	4.77	86	0.017	0.003	0.011	97.62	56.64	3.441	98.97
10/6/2010	1.429	90	0.303	3.755	393.90	89	1.429	3.94	89	0.014	3.07	89	0.011	0.003	0.014	99.00	22.08	3.741	99.22
12/31/2010[8][9]	1.093	86	0.239	3.994	-	-	-	-	-	-	-	-	0.010	0.002	0.016	-	-	3.978	99.06
1/7/2011	0.756	7	0.017	4.011	-	-	-	3	92	0.011	2.5	92	0.009	0.000	0.016	98.52	16.67	3.994	98.76
3/8/2011	0.363	60	0.074	4.085	-	-	-	0.83	82	0.003	0	82	0.000	0.001	0.017	99.23	100.00	4.068	100.00
4/4/2011	0.766	27	0.034	4.118	-	-	-	4.26	77	0.013	1	77	0.003	0.000	0.017	98.25	76.53	4.101	99.59
7/6/2011	3.723	93	0.460	4.578	-	-	-	3.20	128	0.017	0.69	128	0.004	0.001	0.018	99.55	78.44	4.561	99.90
10/12/2011	0.867	98	0.496	5.074	-	-	-	0.73	62	0.002	1.94	62	0.005	0.001	0.018	99.79	-165.75	5.056	99.43
12/31/2011[8]	1.091	80	0.192	5.266	-	-	-	-	-	-	-	-	0.004	0.001	0.019	-	-	5.247	99.65
1/11/2012	1.315	11	0.026	5.293	-	-	-	4.50	76	0.014	0.89	76	0.003	0.000	0.019	98.94	80.22	5.274	99.79
4/3/2012	0.919	83	0.204	5.497	-	-	-	2.41	70	0.007	0	70	0.000	0.000	0.019	99.25	100.00	5.478	100.00
7/11/2012	1.600	99	0.275	5.772	-	-	-	5.40	87	0.019	0	87	0.000	0.000	0.019	98.80	100.00	5.752	100.00
10/17/2012	2.603	98	0.454	6.226	-	-	-	3.60	75	0.011	1.7	75	0.005	0.001	0.020	99.58	52.78	6.206	99.80
1/15/2013	1.357	15	0.065	6.291	-	-	-	7.80	91	0.029	5	91	0.019	0.000	0.020	97.86	35.90	6.271	98.63
4/23/2013	0.725	98	0.225	6.516	-	-	-	3.44	68	0.009	4.06	68	0.011	0.003	0.024	98.69	-18.02	6.493	98.46
7/11/2013	0.750	79	0.128	6.645	-	-	-	3.80	73	0.011	0.00	73	0.000	0.001	0.025	98.49	100.00	6.620	100.00
10/23/2013	1.534	104	0.262	6.906	-	-	-	3.40	130	0.018	1.30	130	0.007	0.001	0.025	98.82	61.76	6.881	99.55
12/31/2013[11]	1.091	69	0.166	7.072	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2014	0.862	91	0.173	7.245	-	-	-	4.73	110	0.021	4.44	110	0.020	0.003	0.028	97.54	6.13	7.217	97.69
4/4/2014	0.740	101	0.165	7.410	-	-	-	3.73	146	0.022	5.37	146	0.032	0.006	0.034	97.01	-43.97	7.376	95.69
7/10/2014	0.992	82	0.179	7.590	-	-	-	21.30	124	0.108	3.92	124	0.020	0.005	0.039	89.13	81.60	7.551	98.00
10/9/2014	0.804	91	0.161	7.751	-	-	-	3.92	115	0.018	3.10	115	0.015	0.003	0.042	97.71	20.92	7.709	98.19
1/9/2015	0.667	91	0.148	7.899	-	-	-	6.90	117	0.033	8.50	117	0.041	0.006	0.048	95.07	-23.19	7.851	93.93
4/16/2015	0.693	97	0.145	8.044	-	-	-	7.650	119	0.037	6.57	119	0.032	0.008	0.055	94.62	14.12	7.989	95.38
7/8/2015	1.724	83	0.221	8.265	-	-	-	0.470	279	0.005	0.00	279	0.000	0.003	0.058	99.69	100.00	8.207	100.00
10/5/2015	0.639	89	0.232	8.497	-	-	-	0.170	102	0.001	0.22	102	0.001	0.000	0.058	99.89	-29.41	8.439	99.86
1/8/2016	0.597	95	0.129	8.626	-	-	-	0.83	130	0.004	0.00	130	0.000	0.000	0.058	99.26	100.00	8.568	100.00
4/7/2016	0.830	90	0.142	8.768	-	-	-	1.050	132	0.006	0.00	132	0.000	0.000	0.058	99.32	100.00	8.709	100.00
7/14/2016	0.876	98	0.184	8.952	-	-	-	1.950	154	0.012	0.55	154	0.003	0.000	0.059	98.60	71.79	8.893	99.61
10/12/2016	0.543	90	0.141	9.093	-	-	-	2.120	79	0.007	0.48	79	0.002	0.000	0.059	98.74	77.36	9.034	99.71
1/12/2017	0.079	92	0.063	9.156	-	-	-	0.000	61	0.000	0.00	61	0.000	0.000	0.059	100.00	100.00	9.096	100.00
4/13/2017	0.055	91	0.013	9.169	-	-	-	0.000	71	0.000	0.00	71	0.000	0.000	0.059	100.00	100.00	9.110	100.00
7/19/2017	0.101	97	0.017	9.186	-	-	-	1.900	120	0.009	0.00	120	0.000	0.000	0.059	90.80	100.00	9.127	100.00
10/3/2017	0.065	76	0.014	9.200	-	-	-	2.100	81	0.007	0.00	81	0.000	0.000	0.059	89.19	100.00	9.140	100.00
1/2/2018	0.389	91	0.045	9.245	-	-	-	0.000	53	0.000	0.00	53	0.000	0.000	0.059	100.00	100.00	9.186	100.00
4/2/2018	0.229	90	0.061	9.307	-	-	-	2.700	80	0.009	6.50	80	0.021	0.002	0.062	96.15	-140.74	9.245	90.74
7/10/2018	0.442	99	0.073	9.380	-	-	-	0.000	117	0.000	0.00	117	0.000	0.002	0.064	100.00	100.00	9.316	100.00
10/9/2018	0.376	91	0.082	9.462	-	-	-	5.300	93	0.020	3.90	93	0.015	0.001	0.065	94.65	26.42	9.397	96.06
1/2/2019	0.217	85	0.056	9.517	-	-	-	0.000	62	0.000	0.00	62	0.000	0.001	0.067	100.00	100.00	9.451	100.00
4/2/2019	0.790	90	0.100	9.617	-	-	-	0.000	94	0.000	0.00	94	0.000	0.000	0.067	100.00	100.00	9.551	100.00
7/9/2019	0.910	98	0.184	9.801	-	-	-	0.000	133	0.000	0.00	133	0.000	0.000	0.067	100.00	100.00	9.734	100.00
10/1/2019	0.695	84	0.149	9.950	-	-	-	0.000	95	0.000	0.00	95	0.000	0.000	0.067	100.00	100.00	9.883	100.00
1/21/2020	0.309	112	0.124	10.074	-	-	-	0.490	67	0.001	0.00	67	0.000	0.000	0.067	99.57	100.00	10.007	100.00
4/8/2020[12]	0.255	78	0.048	10.122	66.60	94	0.255	2.800	94	0.011	2.00	94	0.008	0.001	0.067	95.79	28.57	10.055	96.99
7/7/2020 [13]	0.533	90	0.078	10.200	128.10	102	0.533	2.600	102	0.011	4.70	102	0.020	0.003	0.070	97.97	-80.77	10.130	96.33
10/6/2020 [13]	0.424	91	0.096	10.296	130.00	80	0.424	0.000	80	0.000	0.00	80	0.000	0.002	0.072	100.00	100.00	10.224	100.00
1/6/2021 [13]	0.559	90	0.098	10.394	133.00	103	0.559	-	-	-	-	-	-		-	-	-	-	-
4/8/2021 [13]	0.466	90	0.102	10.495	100.30	114	0.466	-	-	-	-	-	-		-	-	-	-	-
7/9/2021 [13]	0.534	90	0.099	10.595	104.00	126	0.534	-	-	-	-	-	-		-	-	-	-	-
10/4/2021 [13]	0.603	85	0.107	10.701	123.20	120	0.603	-	-	-	-	-	-		-	-	-	-	-
1/10/2022	0.316	98	0.099	10.800	80.00	97	0.316	-	-	-	-	-	-		-	-	-	-	-
4/5/2022	0.368	85	0.064	10.864	88.60	102	0.368	-	-	-	-	-	-		-	-	-	-	-
7/15/2022	0.829	101	0.133	10.998	148.40	137	0.829	-	-	-	-	-	-		-	-	-	-	-
10/31/2022	0.388	108	0.145	11.143	85.70	111	0.388	-	-	-	-	-	-		-	-	-	-	-
1/4/2023	0.088	65	0.034	11.177	20.20	107	0.088	-	-	-	-	-	-		-	-	-	-	-
4/14/2023	0.217	100	0.034	11.210	63.44	84	0.217	-	-	-	-	-	-		-	-	-	-	-
7/13/2023	0.692	90	0.090	11.301	133.60	127	0.692	-	-	-	-	-	-		-	-	-	-	-
10/7/2023	0.484	86	0.111	11.412	95.00	125	0.484	-	-	-	-	-	-		-	-	-	-	-
3/1/2024	0.283	146	0.123	11.535	67.40	103	0.283	-	-	-	-	-	-		-	-	-	-	-
4/24/2024	0.461	54	0.044	11.580	95.83	118	0.461	-	-	-	-	-	-		-	-	-	-	-
7/1/2024	0.451	68	0.068	11.648	89.90	123	0.451	-	-	-	-	-	-		-	-	-	-	-
10/8/2024	0.423	99	0.095	11.743	82.27	126	0.423	-	-	-	-	-	-	-	-	-	-	-	-

Target VOC Removed (lb)[6]	
Fourth Quarter - 2013	0.43
2013 Total (YTD)	0.85
First Quarter - 2014	0.17
Second Quarter - 2014	0.16
Third Quarter - 2014	0.18
Fourth Quarter - 2014	0.16
2014 Total (YTD)	0.68
First Quarter - 2015	0.15
Second Quarter - 2015	0.15
Third Quarter - 2015	0.22
Fourth Quarter - 2015	0.23
2015 Total (YTD)	0.75
First Quarter - 2016	0.13
Second Quarter - 2016	0.14
Third Quarter - 2016	0.18
Fourth Quarter - 2016	0.14
2016 Total (YTD)	0.60
First Quarter - 2017	0.06
Second Quarter - 2017	0.01
Third Quarter - 2017	0.02
Fourth Quarter 2017	0.01
2017 Total (YTD)	0.11
First Quarter - 2018	0.05
Second Quarter - 2018	0.06
Third Quarter - 2018	0.07
Fourth Quarter 2018	0.08
2018 Total (YTD)	0.26
First Quarter - 2019	0.06
Second Quarter - 2019	0.10
Third Quarter - 2019	0.18
Fourth Quarter 2019	0.15
2019 Total (YTD)	0.49
First Quarter - 2020	0.12
Second Quarter - 2020	0.05
Third Quarter - 2020	0.08
Fourth Quarter 2020	0.10
2020 Total (YTD)	0.35
First Quarter - 2021	0.098
Second Quarter - 2021	0.102
Third Quarter - 2021	0.099
Fourth Quarter - 2021	0.100
2021 Total (YTD)	0.399
First Quarter - 2022	0.099
Second Quarter - 2022	0.064
Third Quarter - 2022	0.133
Fourth Quarter - 2022	0.145
2022 Total (YTD)	0.441
First Quarter - 2023	0.034
Second Quarter - 2023	0.034
Third Quarter - 2023	0.090
FourthQuarter - 2023	0.111
2023 Total (YTD)	0.269
First Quarter - 2024	0.123
Second Quarter - 2024	0.044
Third Quarter - 2024	0.068
Fourth Quarter - 2024	0.095
2024 Total (YTD)	0.330
Cumulative Since Startup	11.743

Notes:

1. Cumulative target VOC concentrations calculated using only detected concentrations of the following compounds: 1,1-dichloroethene, cis-1,2-dichloroethene, tetrachloroethylene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride.

2. Following the start of 2011, flowrates from each depressurization sump were estimated by measuring differential pressure at each individual sump's orifice plate. The sump flowrates were adjusted proportionally to one another so that their sum equals a cumulative influent flowrate as measured using an anemometer. Prior to the start of 2011, combined effluent flow rates estimated based on the differential pressure transmitter located between the blower and the carbon. Note that flow rates for SDS-1, SDS-2, and SDS-3 have been estimated based on adjusting them so that the sum of the SDS-1, SDS-2, and SDS-3 flow rates equal the flow rate measured by the differential pressure transmitter. SDS-1, SDS-2, and SDS-3 flow rates were adjusted by maintaining the same proportions observed by air velocities measured in the field at each location. All flow rates have been converted from acfm to scfm for this table.

3. Total target VOC mass removal rate was calculated using the sum of the target VOC mass removal rates for SDS-1, SDS-2, and SDS-3 through 2010. If individual samples were not collected from each SDS, then total mass removal rate is calculated using combined influent sample concentrations. Beginning in 2011 the total target VOC mass removal rate is calculated using the sum of the target VOC mass removal rates for SDS-1 through SDS-7.

4. Target VOC mass removed per reporting period calculated using an average of the current mass removal rate and the mass removal rate from the previous reporting period. Reporting period length used for mass removed calculation is the time elapsed since the previous reading.

5. Cumulative VOC mass removed and mass emitted estimates date back to 7/17/08, when SDS-3 was brought online.

6. Target VOC mass emitted per reporting period calculated using an average of the current mass emission rate and the mass emission rate from the previous reporting period. Reporting period length used for mass emitted calculation is the time elapsed since the previous reading.

7. SDS-1 vapor sample results from 10/9/09 not used in this table due to sampling procedure error. Results from the resampling of SDS-1 on 11/5/09 have been used for this table.

8. Vapor samples were not collected on 12/31/09, 12/31/10, 12/31/11, and 12/31/12. Total target VOC mass removal and target VOC emission rates were estimated for 12/31/09, 12/31/10, 12/31/11, and 12/31/12 by averaging the VOC removal and VOC emission rates from the previous and following sampling events, respectively.

9. It should be noted that samples from 1/7/11, which have been used to estimate mass removal and emission rates for 12/31/10, were collected while the upgraded system was in use and with all seven depressurization sumps online. The combined effluent flowrate used to calculate mass emission rate was the sum of the flowrates measured in the field from SDS-1, SDS-2, and SDS-3. The combined effluent VOC concentration used to calculate mass emission rate was based off of an effluent vapor sample collected with SDS-1 through SDS-7 online. It should also be noted that from 11/11/10 to 1/3/11, the system was typically offline for approximately 8 hours per work day. This has not been accounted for in mass removal or emission estimates.

10. Combined influent vapor samples are not collected, influent mass is tracked only from individual SDS points.

11. The total VOC removal (lbs) was estimated for the period from 10/23/13 and 12/31/13 using the average VOC concentrations and flowrate.

12. Due to COVID-19, no individual vapor samples were collected from SDS-1 to SDS-8; a combined influent vapor sample was collected during the April quarterly event.

13. As per the NYSDEC approved optimization of the OMM procedure, effluent (discharge to stack) vapor samples will be collected going forward.

Definitions:

g/day - grams per day

lb - pounds

scfm - standard cubic feet per minute

µg/m^3 - micrograms per cubic meter

VOC - Volatile Organic Compounds

Table A-5 Regulatory Status of Air Emissions, Former Lockheed Martin French Road Facility, Utica, New York

Volatile Organic Compounds[1]	AGC[1] (µg/m^3)	SGC[1] (µg/m^3)	1/6/2021		4/8/2021		7/9/2021		10/4/2021		1/10/2022		4/5/2022		7/15/2022		10/31/2022		1/4/2023		4/14/2023		7/13/2023		7/13/2023		10/7/2023		3/1/2024		4/24/2024		7/1/2024		10/8/2024		Emission Rate Potential - Actual (lb/year)	Actual Annual Impact Percentage of AGC (%)
			Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q	Result (µg/m3)	Q		
1,1,1-Trichloroethane	5,000	9,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**3**		**3**		**1.7**		**1.3**		**1.4**		**1.3**		**1.22**		0.005	-
1,1-Dichloroethene	0.63	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	0.00
1,2,4-Trimethylbenzene	6	-	ND		**3.2**		**9.3**		**2.6**		ND		ND		ND		ND		ND		ND		**1.1**		**1.1**		ND		**0.63**		ND		**2**		**0.934**		0.004	-
1,2-Dichloroethane	0.038	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
1,3,5-Trimethylbenzene	6	-	ND		ND		**5.7**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**33**		ND		-	-
1,3-butadiene	0.032	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
1,4-Dichlorobenzene	0.09	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
1,4-Dioxane	0.2	3,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
2,2,4-trimethylpentane	3,300	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
4-ethyltoluene	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Acetone	30,000	180,000	ND		**69.6**		**102**		**48.6**		**34.3**		**31.6**		**82.5**		**43**		**24.3**		**64**		**58**		**58**		**41**		**45**		**57**		**38**		**18.8**		0.078	-
Benzene	0.13	1,300	ND		**9.7**		**288**		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.45**		ND		**0.64**		ND		-	-
Carbon disulfide	700	6,200	ND		**130**		**5.9**		**31.8**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Chlorobenzene	60	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Chloroethane	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Chloroform	14.7	150	ND		**20.1**		**36.3**		**39.5**		**14**		**12.4**		**59.7**		**42**		**5.8**		**27**		**56**		**56**		**25**		**17**		**14**		**34**		**19.6**		0.081	-
Chloromethane	90	22,000	ND		ND		ND		ND		ND		ND		ND		ND		**1.1**		**1.4**		**0.65**		**0.65**		ND		**0.64**		**0.65**		ND		**0.586**		0.002	-
cis-1,2-Dichloroethene	63	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		**2.1**		**1.6**		**1.6**		**1.5**		**1.1**		**1.1**		**0.9**		**1.13**		0.005	0.00
Cyclohexane	6,000	-	ND		**6.7**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**2.3**		**2.1**		**170**		**1.2**		0.005	-
Ethylbenzene	1,000	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Freon 11	5,000	9,000	ND		**2.4**		**5.7**		ND		ND		ND		**3.5**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NS		-	-
Freon 113	180,000	960,000	ND		ND		**4.1**		ND		ND		ND		**7.2**		ND		ND		ND		ND		ND		ND		ND		ND		ND		**1.63**		0.007	-
Freon 114	17,000	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Freon 12	12,000	-	**4.3**		**4**		**4.6**		**6.9**		**4.3**		**3.3**		**6.6**		**5.6**		**3.3**		**6.5**		**2.5**		**2.5**		**3.8**		ND		**3.4**		**2.5**		NS		-	-
Freon 22	50,000	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NS		-	-
Heptane	3,900	210,000	ND		ND		ND		ND		**3**		ND		ND		ND		ND		ND		ND		ND		ND		**1.8**		**6**		**9.5**		**3.25**		0.013	-
Hexane	700	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Isopropyl alcohol	7,000	98,000	**370**		**516**		**439**		**285**		**279**		**200**		**548**		**251**		**97.2**		**370**		**220**		**220**		**250**		**200**		**220**		**160**		**212**		0.876	-
m&p-Xylene	100	22,000	ND		ND		**90.8**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Methyl Butyl Ketone	30	4,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Methyl Ethyl Ketone	5,000	13,000	ND		ND		ND		ND		ND		ND		ND		**9.8**		ND		ND		ND		ND		ND		ND		ND		ND		**1.29**		0.005	-
Methyl Isobutyl Ketone	3,000	31,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Methylene chloride	60	14,000	**107**		**102**		**39.6**		**33.6**		**16**		**116**		**78**		**31.5**		**19**		**57**		**36**		**36**		**33**		**55**		**27**		**25**		**197**		0.814	-
Naphthalene	3	7,900	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
n-Butane	238,000	-	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		-	-
n-Propylbenzene	1,000	54,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NS		-	-
o-Xylene	100	22,000	ND		ND		**17.8**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		NS		-	-
Styrene	1,000	17,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.515**		0.002	-
tert-Butyl alcohol	720	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Tetrachloroethylene	3.8	300	**118**		**88.9**		**88.5**		**111**		**69.1**		**80.8**		**133**		**75.1**		**16.1**		**51**		**120**		**120**		**84**		**59**		**87**		**78**		**71.2**		0.294	0.10
Tetrahydrofuran	350	30,000	ND		**2.4**		**2.7**		**2.5**		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-	-
Toluene	5,000	37,000	ND		**11.3**		**207**		**4**		**2.4**		**8.7**		**12.4**		**2.7**		**3.4**		**6.3**		**2.1**		**2.1**		**3.5**		**1.6**		**0.81**		**2.3**		**1.11**		0.005	-
trans-1,2-Dichloroethene	63	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.53**		ND		ND		-	0.00
Trichloroethene	0.2	20	**14.6**		**11.4**		**15.5**		**12.2**		**10.9**		**7.8**		**15.4**		**10.6**		**4.1**		**9.7**		**12**		**12**		**9.5**		**7.3**		**7.2**		**11**		**9.94**		0.041	0.00
Vinyl chloride	0.11	180,000	ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.64**		ND		ND		ND		ND		ND		ND		ND		-	0.00

Notes:

1. AGC and SGC ambient exposure values obtained from NYSDEC DAR-1 AGC/SGC Tables, dated 7/14/16.

2. Maximum actual impacts based on the target VOC concentrations detected in the vapor sample collected from the SSDS (SP-303).

3. The air flow rate (cubic feet per minute [cfm]) used in the calculations is the average flow from the blower from the SSDS.

4. Emission Rate (lb/year) = air flow rate * VOC concentration (µg/m^3) * 1 m^3/35.32 ft^3 * 60 minutes/hour * 24 hours/day* 365 days/year * 1 g/10^6 µg * 1 lb/453.6 g.

5. Actual annual impact percentage of AGC calculated by following procedures described in NYSDEC DAR-1 using AERSCREEN dispersion modeling using target VOC concentrations.

Definitions:

< - less than laboratory detection limit listed

"-" - indicates no guideline as been established

AGC - Annual Guideline Concentration (average based)

J - Indicates concentration is estimated

B - Indicates that the compound was also identified in the method blank and sample.

lb/day - pounds per day

ND - not detected above reporting limit

NS - parameter not analyzed

Q - data qualifier

SGC - Short-term Guideline Concentration

µg/m^3 - micrograms per cubic meter

Table A-6
SDS/VMP Location and Instantaneous Differential Pressure Data
Former Lockheed Martin French Road Facility, Utica, New York

Sump	Associated VMPs	Distance	Direction	2024 Avg. Vacuum (in. W.C.)
SDS-1	VMP-1A	17ft	E	0.025
	VMP-1B	33ft	W	0.564
	VMP-1C	33ft	S	0.047
	VMP-4	77ft	S	0.018
SDS-2	VMP-2A	29ft	N	0.092
	VMP-2B	31ft	S	0.166
	VMP-2C	42ft	W	0.115
SDS-3	VMP-3C	17ft	N	0.055
	VMP-3B	26ft	S	0.008
	VMP-3D	49ft	SE	0.044
SDS-4	VMP-3E	24ft	NW	0.025
SDS-5	VMP-5	26ft	SE	0.297
	VMP-3A	29ft	NE	0.167
	VMP-5A	38ft	W	0.127
	VMP-5B	43ft	N	0.065
SDS-6	VMP-6A	35ft	W	0.131
	VMP-6B	35ft	S	0.450
	VMP-6	55ft	N	0.377
SDS-7	VMP-7	44ft	N	1.229
	VMP-7B	41ftt	E	0.301
SDS-8	VMP-7A	3ft	S	10.000
	VMP-8A	15ft	NW	3.850
	VMP-8B	19ft	S	10.750
SDS-9	VMP-8C	15 ft	W	0.165
	VMP-8D	40 ft	N	0.256

FIGURES

LOCATION OF FULL-SCALE SSDS PROCESS EQUIPMENT

LOCATION OF ICM SSDS PROCESS EQUIPMENT

APPROXIMATE LOCATION OF WEST BASEMENT SUMP

APPROXIMATE LOCATION OF EAST BASEMENT SUMP

FORMER PH NEUTRALIZATION BUILDING

FORMER SYSTEM PIPING

DOCK

MACH SHOP

COMPACT ROOM

RECEIVING

RECEIVING AREA

INCOMING STORAGE AREA 440 SQFT

RECEIVING OFFICE AREA 380 SQFT

QA ENG AGEING CHAMBER 250 SQFT

OFFICE 160 SQFT

QA INCOMING INSPECTION

LIFT

QA HOLDING AREA CAGE 325 SQFT

FIBER OPTIC SCOPES MFG

INCOMING MATL. WAREHOUSE

PINE CHASE

M

W

CAL LAB 240 SQFT

CAL LAB 418 SQFT

SOLVENT STORAGE AREA 180 SQFT

CAL LAB 56 SQFT

DOCKING 465 SQFT

CET ROOM WAREHOUSE 1600 SQFT

CET PACKAGING & STAGING AREA 1125 SQFT

MOLDING FACILITY

MOLD STORAGE

MOLD STORAGE

MOLD MAINT.

MOLD MAINT.

CHEMICAL STORAGE

8" Roof Drain

24" RCP

CB-1

24" RCP

6" Lateral

6" Lateral

6" Lateral

6" Lateral

6" Lateral

E 35

VMP-3C

VMP-5B

VMP-3A

VMP-3B

VMP-5A

SDS-3

VMP-3E

VMP-3D

SDS-4

SDS-5

VMP-5

VMP-6

VMP-1B

SDS-1

VMP-1A

VMP-1C

MECHANICS SHOP

PACK ROOM CET-REDO 1094 SQFT

CET WHITE ROOM 3869 SQFT

PARTS ROOM

STRIP DOOR

SILICONE ROOM 90 SQFT

HYDROPHYLIC COATING ROOM 150 SQFT

REPO 2

APEX TUBING MANUFACTURING

APEX PACK

CHEM. MIXING WOUND CARE

SLIDING DOORS

KITTING

MOLDING FACILITY

MOLDING

MECH. ROOM

SDS-6

VMP-4

VMP-6A

WOUND CARE PACK ROOM

WOUND CARE

OFFICE

WAREHOUSE AREA J

VMP-6B

CABLE ASSEMBLY

LEAD WIRE ASSEMBLY

VMP-2A

FORMER TENANT LINCARE (SEE NOTE 5)

SDS-2

VMP-7

VMP-2C

PACKING

TUBING CASSETTE ASSEMBLY

GOWN ROOM

REPO 1

VMP-8A

SDS-8

SDS-7

VMP-7B

VMP-2B

VMP-7A

VMP-8B

VMP-8D

MOLDING OFFICES

MOLDING/CABLE WIRE RAW MATERIAL STORAGE

CABLE COMPONENT STORAGE

LOCKER ROOM

DEPARTMENT OFFICES

FILE ROOM

SMOKING ROOM

DINING AREA

TELE ROOM

W

M

EDNA S.

STORAGE

STORAGE

CONF. RM

SDS-9

VMP-8C

TRUCK WELL

CAFETERIA

LEGEND

- BUILDING COLUMN LINE IDENTIFICATION
- LOCATION OF SUBSLAB DEPRESSURIZATION ABOVE GRADE PIPING
- SDS-4 LOCATION OF SUBSLAB DEPRESSURIZATION SUMP (SDS)
- VMP-1B LOCATION OF VACUUM MONITORING POINT (VMP)

NOTES:

1. BASE DRAWING SOURCE: CONMED, TITLE: FRENCH ROAD BLOCK PLAN PROPOSED SPACE UTILIZATION, DRAWING NO:FR001, DATE: 01/28/94. CONMED SOURCE DRAWING: LOCKHEED MARTIN DRAWING NUMBER RFABLK.DWG JEG 310CT94.
2. LOCATIONS OF SDS-8, VMP-8A, VMP-8B, VMP-8C, VMP-8D, WERE SURVEYED BY THEW ASSOCIATES ON OCTOBER 17, 2013. ALL OTHER SDS AND VMP LOCATIONS SURVEYED BY THEW ASSOCIATES, LPS IN 2011. REFERENCE DRAWING UK156-10-07.
3. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE AN COORDINATE SYSTEM (CENTRAL ZONE).
4. THE REFERENCED HORIZONTAL CONTROL STATION IS A GPS CONTINUOUSLY OPERATING REFERENCE STATION (CORS) DESIGNATED AS "ROME CORS ARP" (NYRM). NYRM IS A SPECIAL HORIZONTAL AND VERTICAL CONTROL STATION ESTABLISHED BY NATIONAL GEODETIC SURVEY IN JULY 1997.
5. THIS BUILDING SPACE WAS OCCUPIED BY LINCARE, A SUPPLIER OF RESPIRATORY-THERAPY PRODUCTS AND SERVICES. THE SPACE IS CURRENTLY OCCUPIED BY CONMED.

0 40' 80'

GRAPHIC SCALE

2024 ANNUAL SITE MANAGEMENT REPORT

APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report

FORMER LOCKHEED MARTIN FRENCH ROAD FACILITY, UTICA, NY

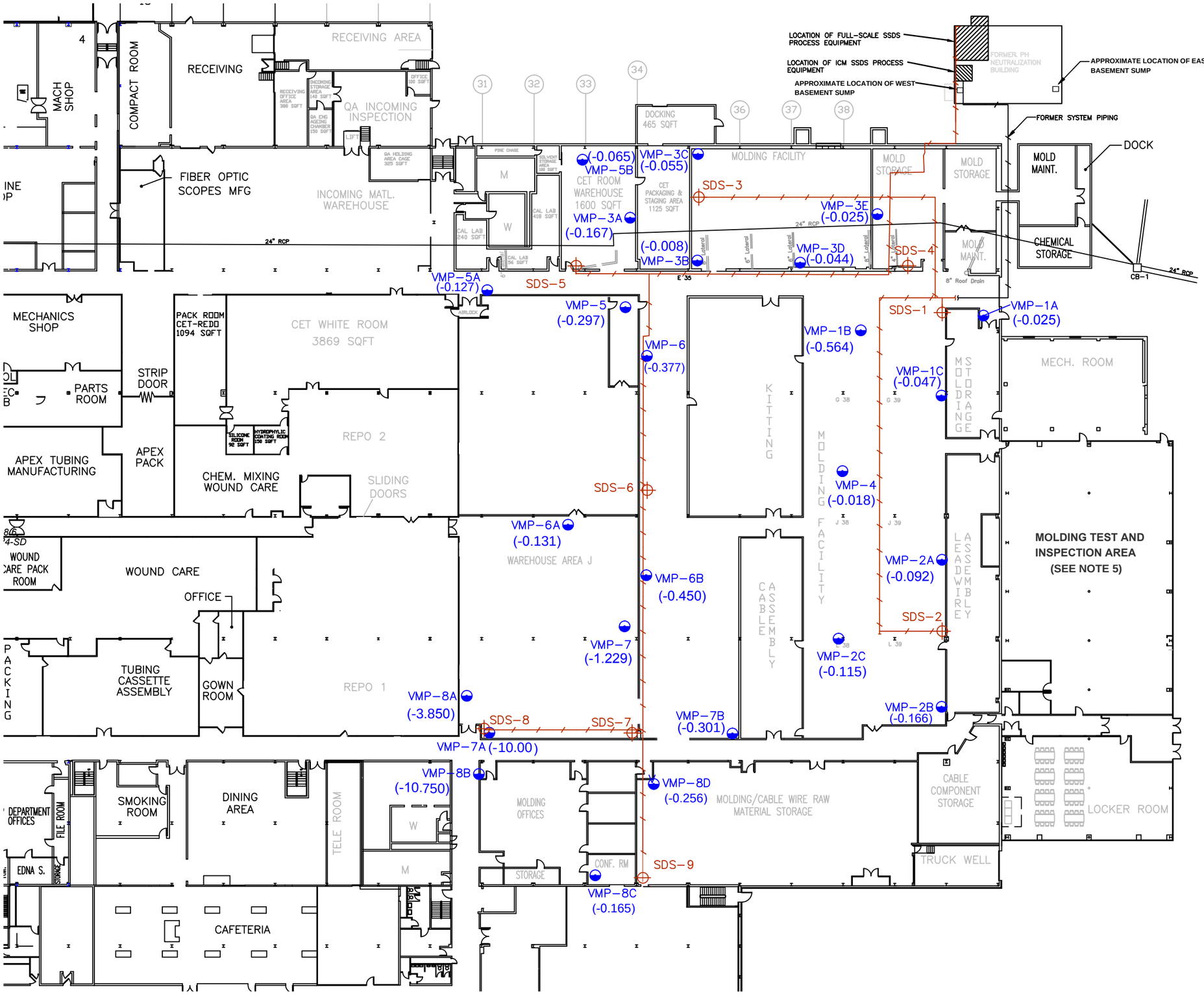
SSDS LAYOUT AND SITE PLAN

TETRA TECH

CHECKED	MRN
DRAFTED	HJW
PROJECT	117-0507677
DATE	1/27/25

FIGURE: A-1

S:\CAD\LOCKHEED MARTIN\UTICA\1-9-18\FIGURE A-1.DWG



LEGEND

- I — BUILDING COLUMN LINE IDENTIFICATION
- LOCATION OF SUBSLAB DEPRESSURIZATION ABOVE GRADE PIPING
- SDS-4 — LOCATION OF SUBSLAB DEPRESSURIZATION SUMP (SDS)
- VMP-1B — LOCATION OF VACUUM MONITORING POINT (VMP)
- (-0.030) — AVERAGE INSTANTANEOUS DIFFERENTIAL PRESSURE (IN W.C.) RECORDED AT THE VMP LOCATION (CRITERIA IS -0.004 IN W.C.)

NOTES:

1. BASE DRAWING SOURCE: CONMED, TITLE: FRENCH ROAD BLOCK PLAN PROPOSED SPACE UTILIZATION, DRAWING NO:FR001, DATE: 01/28/94. CONMED SOURCE DRAWING: LOCKHEED MARTIN DRAWING NUMBER RFABLK.DWG JEG 31OCT94.
2. LOCATIONS OF SDS-8, VMP-8A, VMP-8B, VMP-8C, VMP-8D, WERE SURVEYED BY THEW ASSOCIATES ON OCTOBER 17, 2013. ALL OTHER SDS AND VMP LOCATIONS SURVEYED BY THEW ASSOCIATES, LPS IN 2011. REFERENCE DRAWING UK156-10-07.
3. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE AN COORDINATE SYSTEM (CENTRAL ZONE).
4. THE REFERENCED HORIZONTAL CONTROL STATION IS A GPS CONTINUOUSLY OPERATING REFERENCE STATION (CORS) DESIGNATED AS "ROME CORS ARP" (NYRM). NYRM IS A SPECIAL HORIZONTAL AND VERTICAL CONTROL STATION ESTABLISHED BY NATIONAL GEODETIC SURVEY IN JULY 1997.
5. THIS BUILDING SPACE WAS OCCUPIED BY LINCARE, A SUPPLIER OF RESPIRATORY-THERAPY PRODUCTS AND SERVICES. THE SPACE IS CURRENTLY BEING USED BY CONMED.

0 40' 80'

GRAPHIC SCALE

2024 ANNUAL SITE MANAGEMENT REPORT

APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report

FORMER LOCKHEED MARTIN FRENCH ROAD FACILITY, UTICA, NY

AVERAGE DIFFERENTIAL PRESSURE AT VACUUM MONITORING POINTS

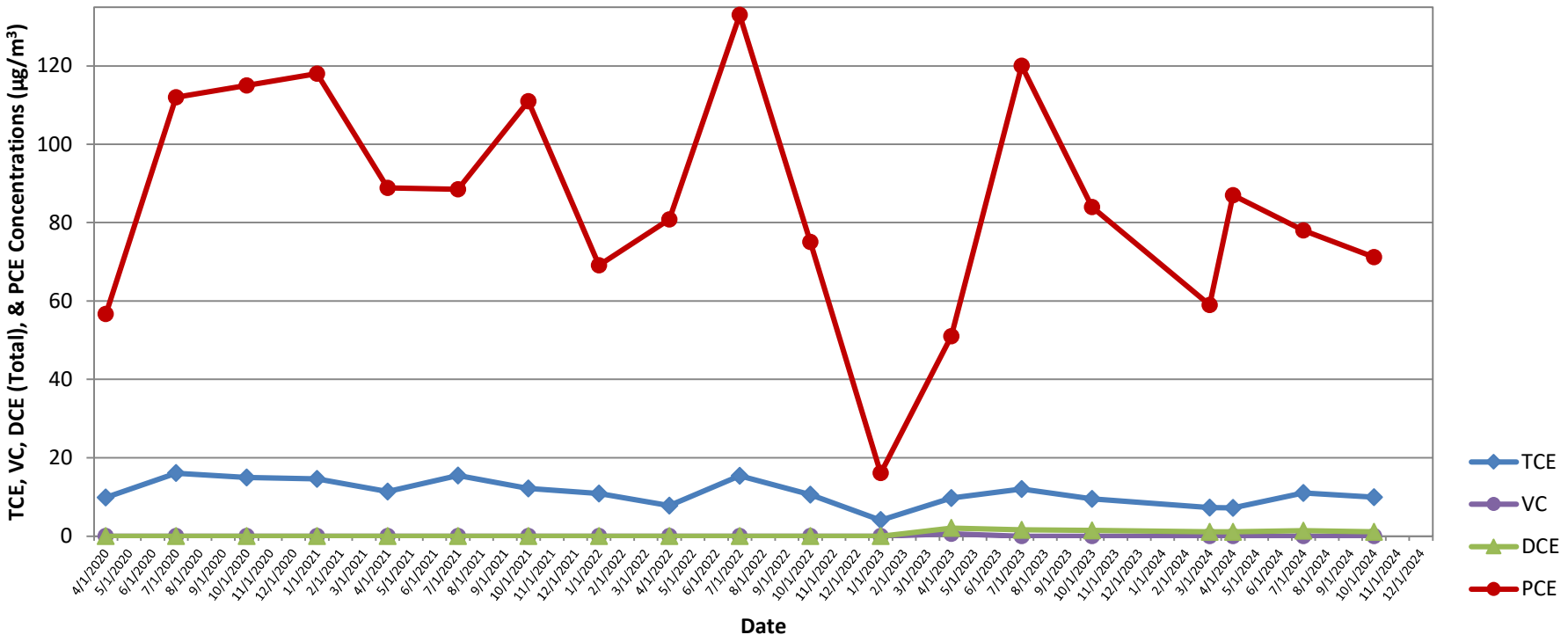
TETRA TECH

CHECKED	MRN
DRAFTED	HJW
PROJECT	117-0507677
DATE	1/27/25

FIGURE: A-2

S:\CAD\LOCKHEED MARTIN\UTICA\1-9-18\FIGURE A-2.DWG

EXTRACTED VAPOR



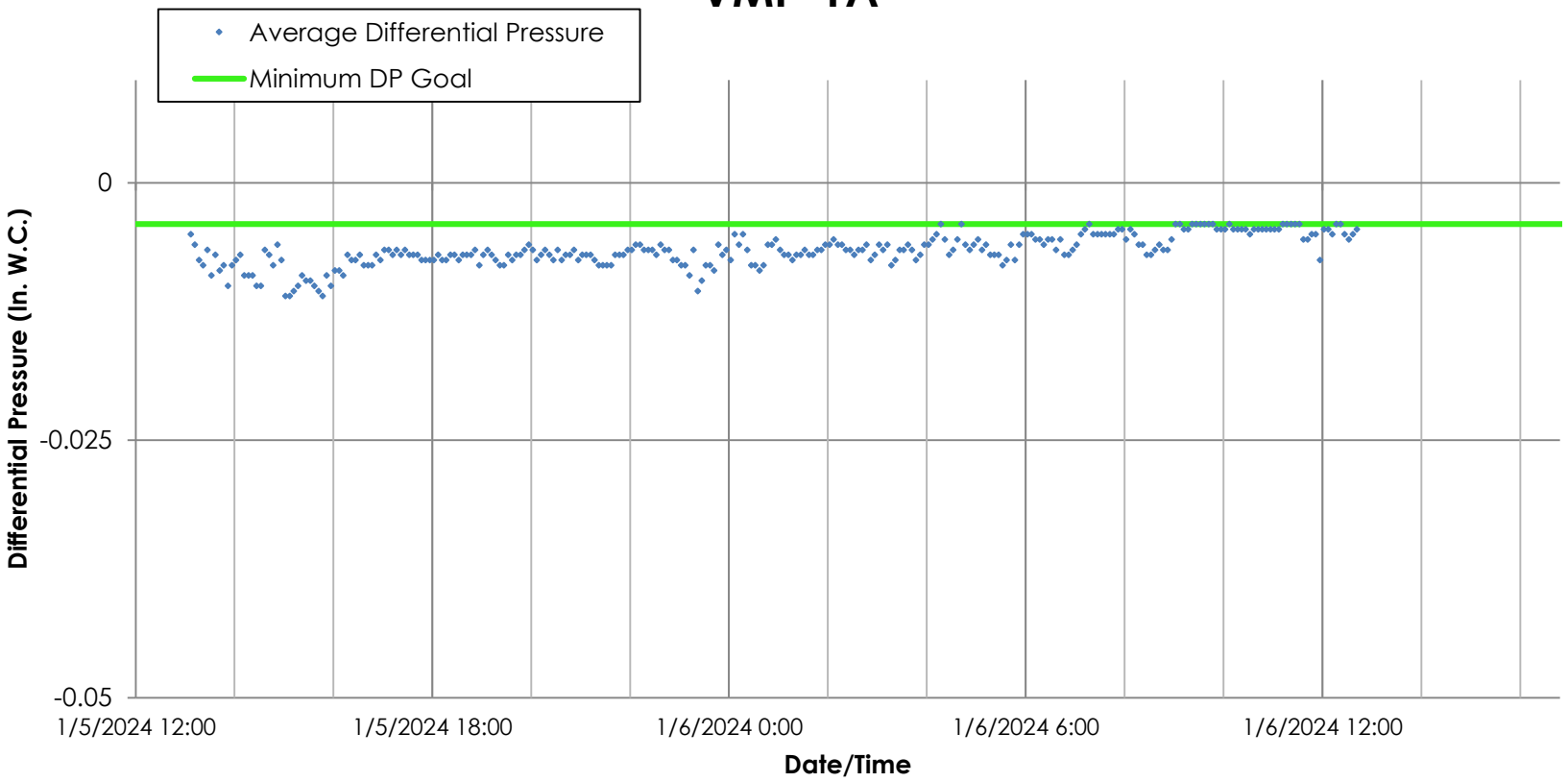
Notes:
TCE = Trichloroethene
VC = Vinyl Chloride
DCE (Total) = 1,1-dichloroethene, cis-1,2-dichloroethene, and trans-1,2-dichloroethene
PCE = Tetrachloroethylene

2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENCH ROAD FACILITY, UTICA, NY

EXTRACTED VAPOR SELECTED ANALYTE CONCENTRATION VS. TIME

TETRA TECH

FIGURE
A-3



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between
-0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

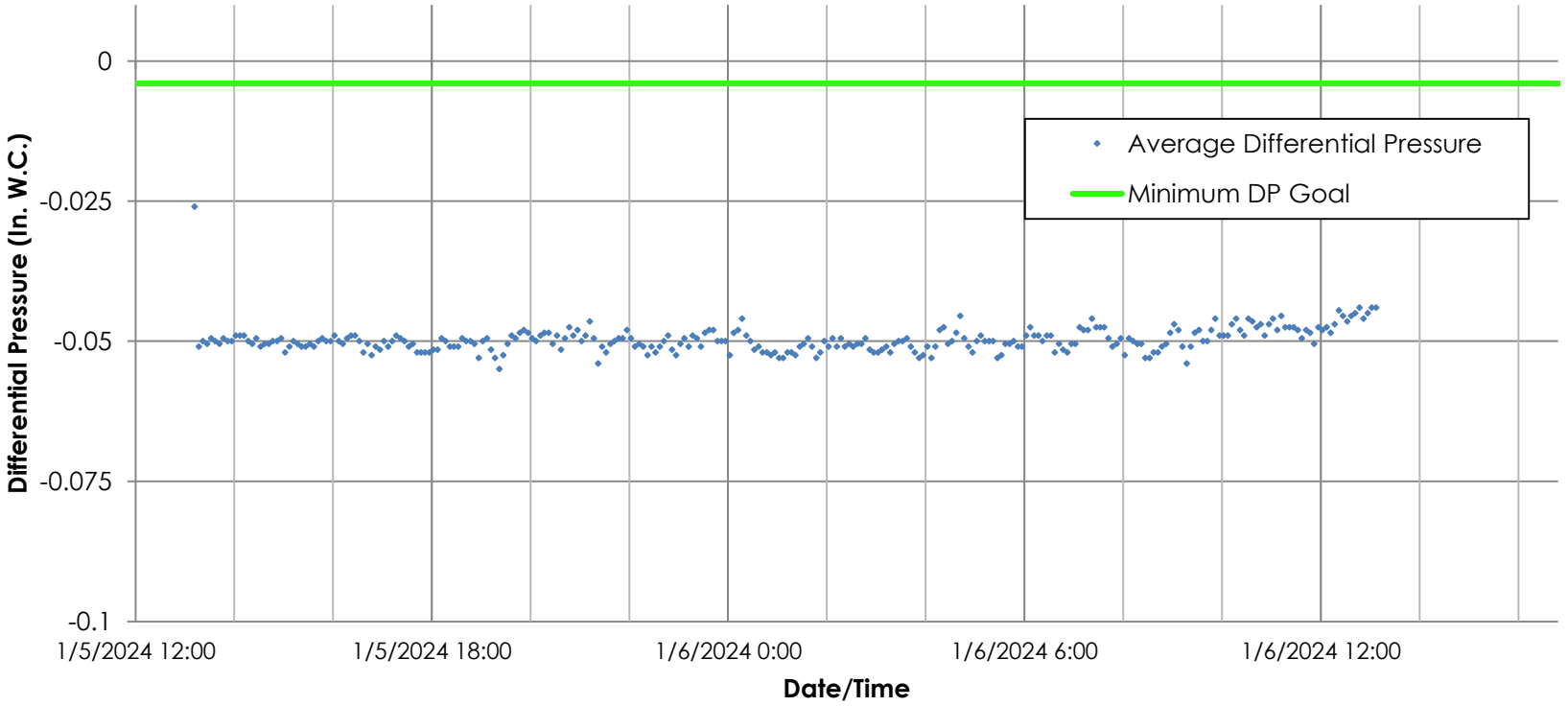
2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 1A
DIFFERENTIAL PRESSURE DATA
JANUARY 5-6, 2024

TETRA TECH

FIGURE
A-4

VMP-2A



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

2024 SITE MANAGEMENT REPORT
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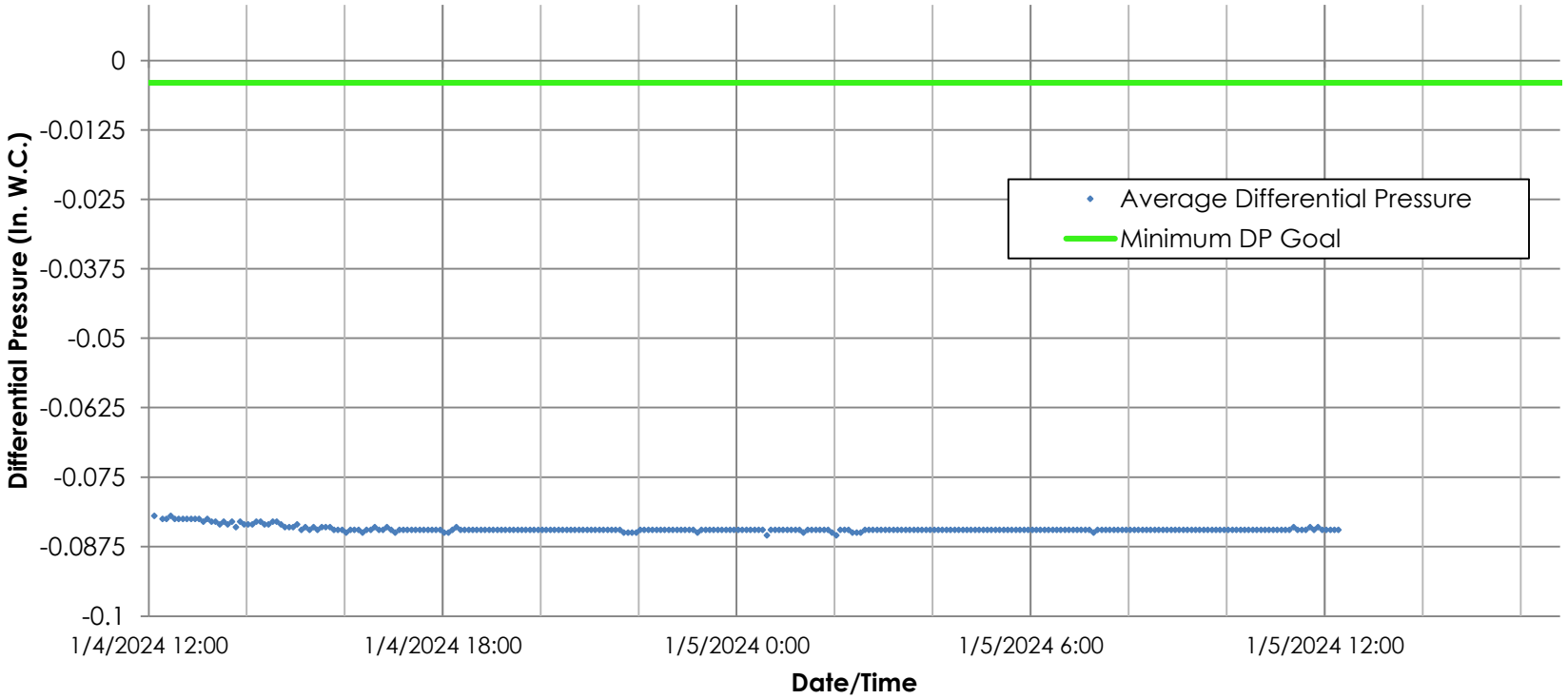
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 2A
DIFFERENTIAL PRESSURE DATA
JANUARY 5-6, 2024

TETRA TECH

FIGURE
A-5

VMP-3A



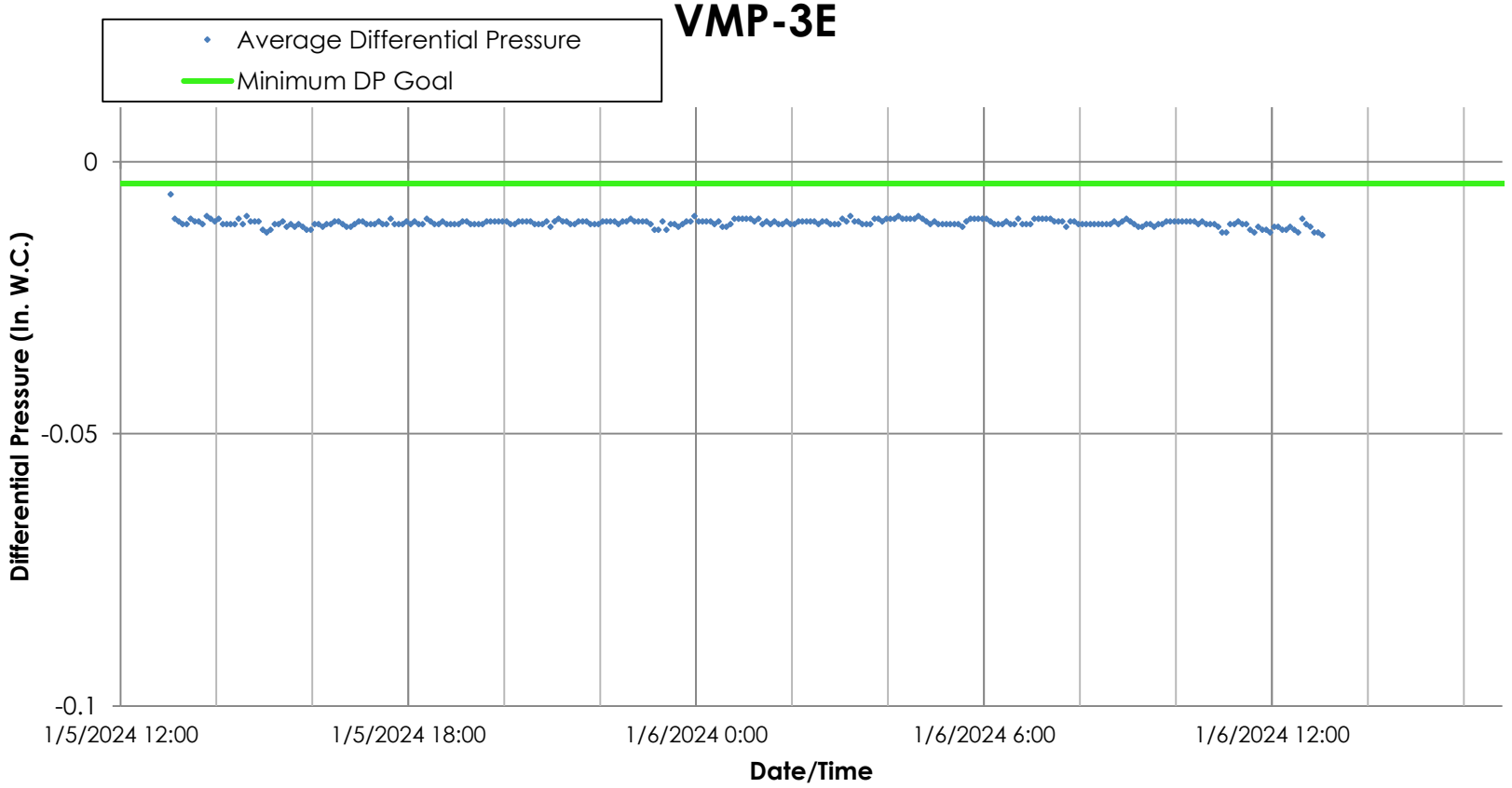
Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 3A
DIFFERENTIAL PRESSURE DATA
JANUARY 4-5, 2024

TETRA TECH

FIGURE
A-6



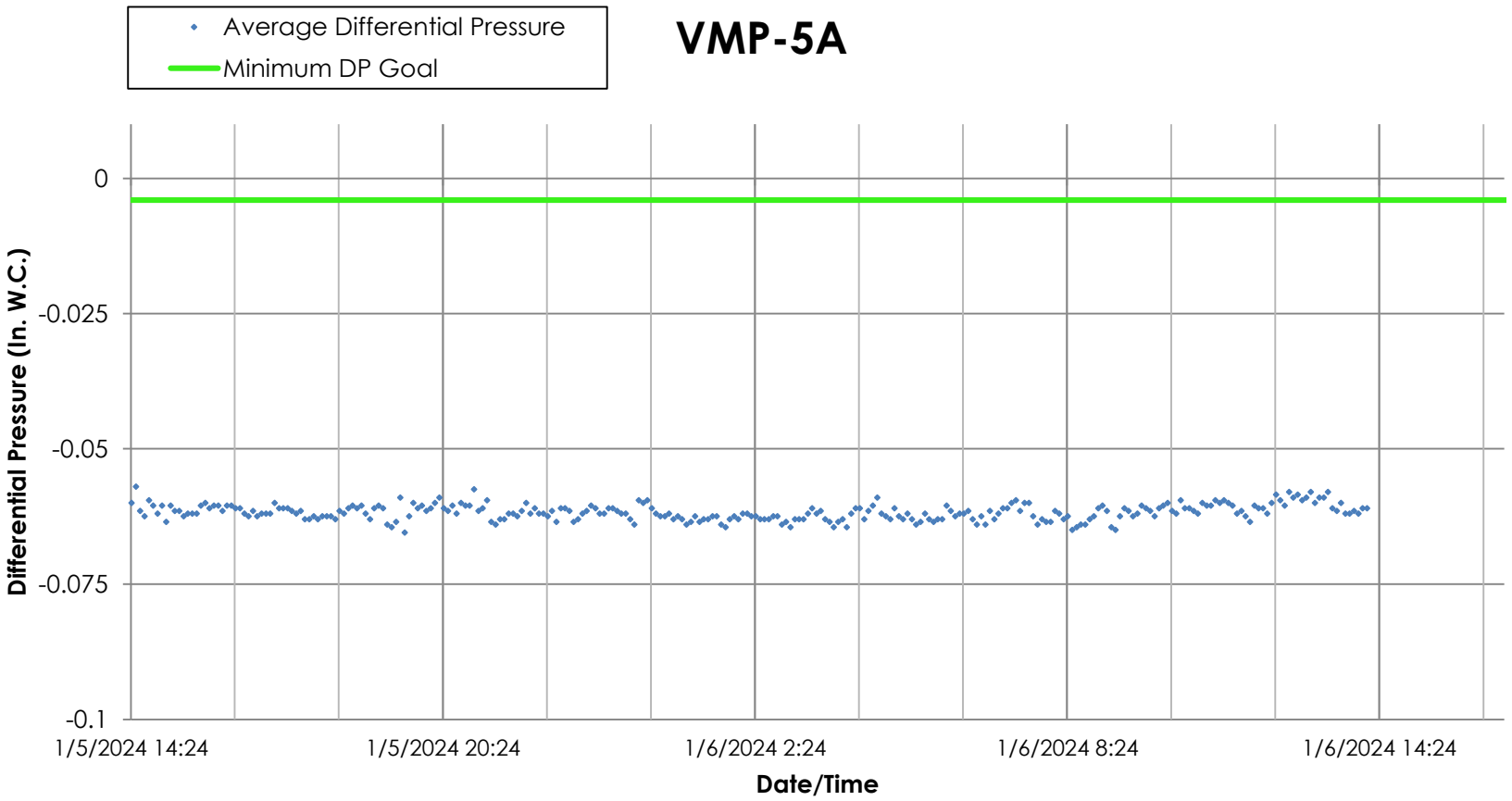
Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 3E
DIFFERENTIAL PRESSURE DATA
JANUARY 5-6, 2024

TETRA TECH

FIGURE
A-7



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

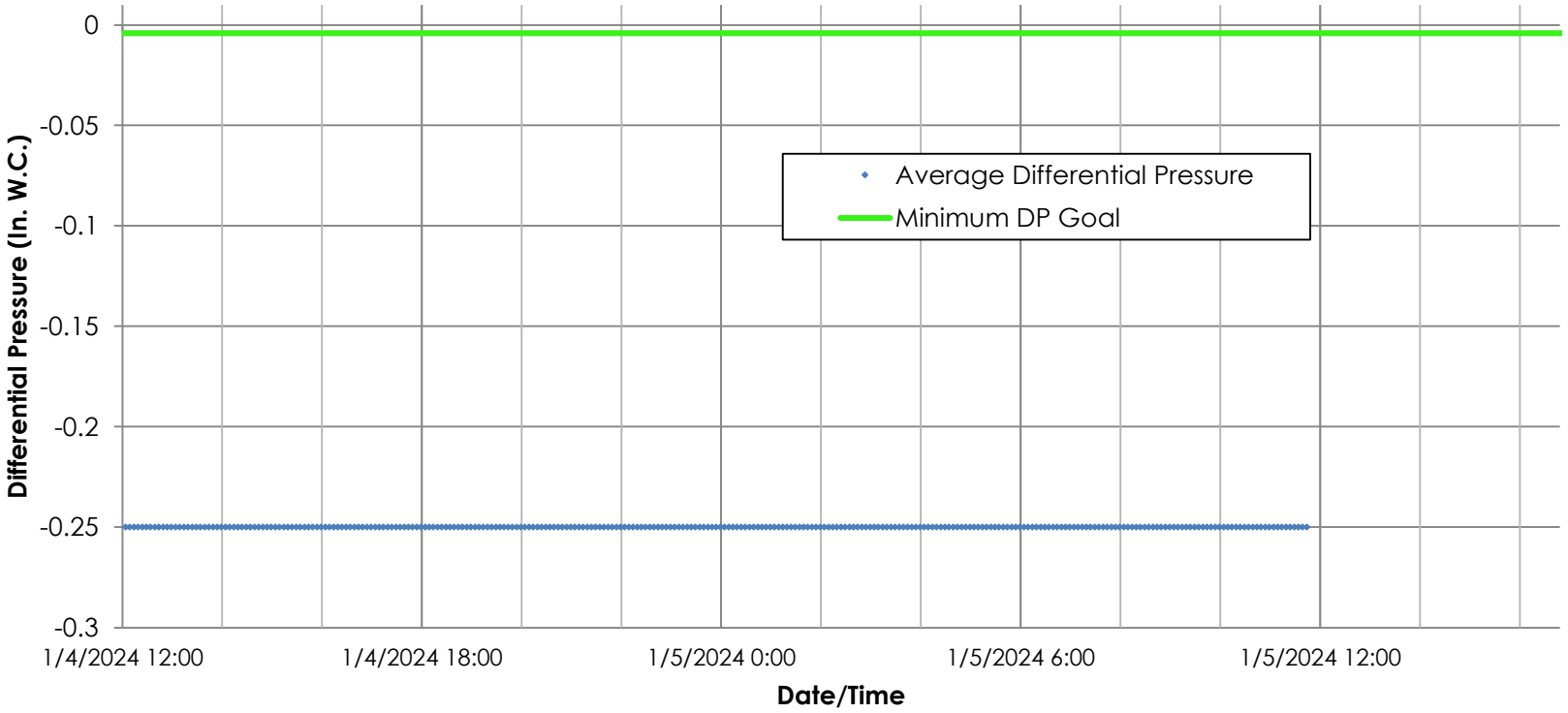
2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 5A
DIFFERENTIAL PRESSURE DATA
JANUARY 5-6, 2024

TETRA TECH

FIGURE
A-8

VMP-7A



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

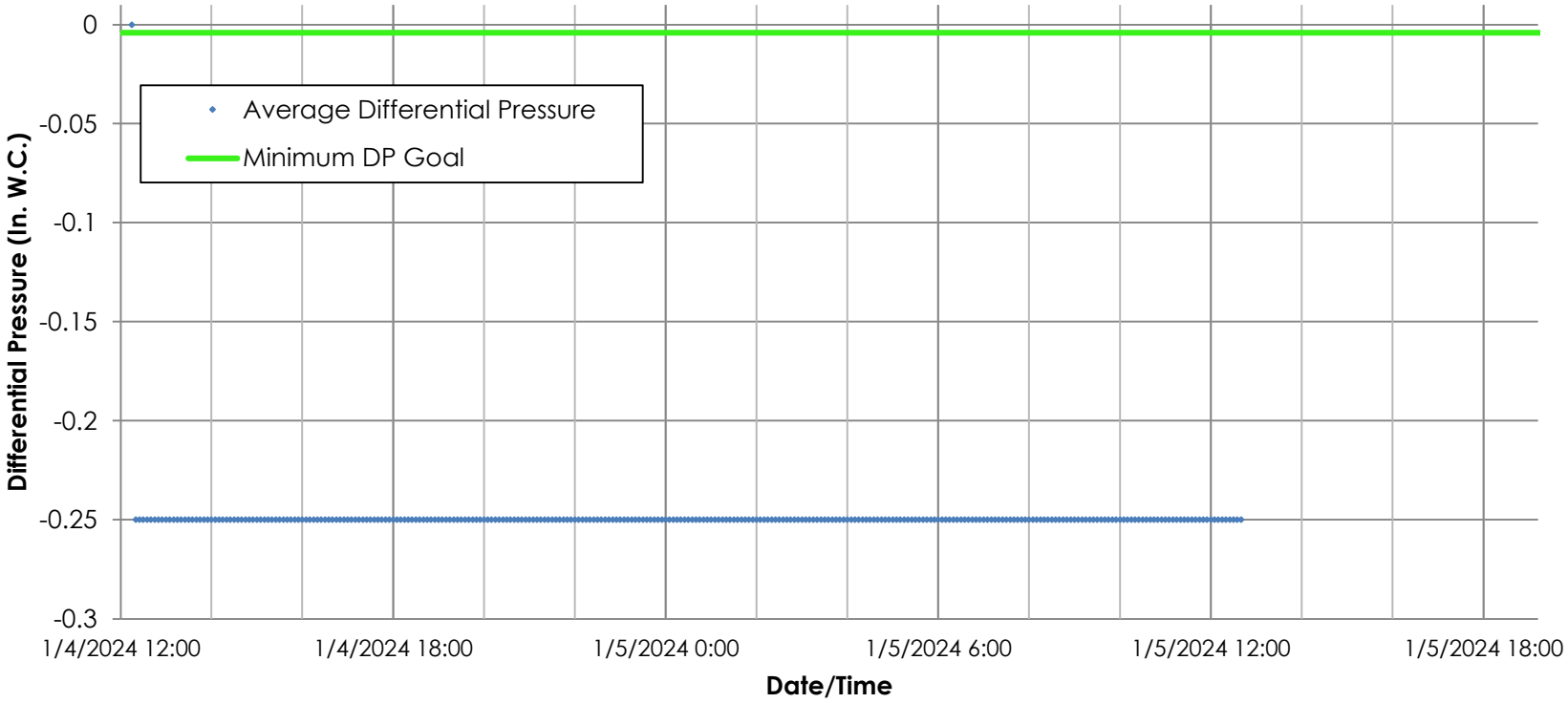
2024 SITE MANAGEMENT REPORT
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 7A
DIFFERENTIAL PRESSURE DATA
JANUARY 4-5, 2024

TETRA TECH

FIGURE
A-9

VMP-8A



Note:
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2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

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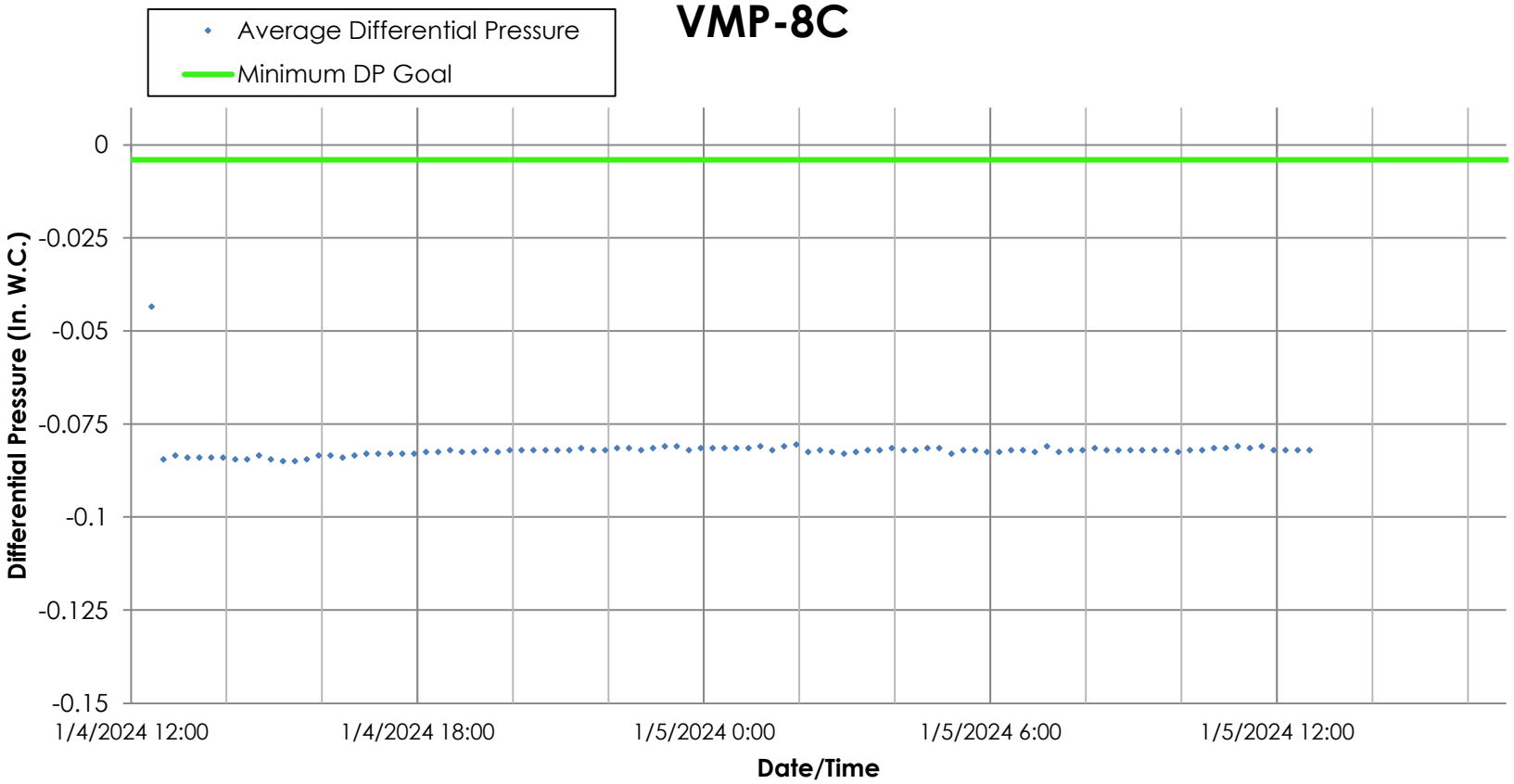
VACUUM MONITORING POINT VMP- 8A
DIFFERENTIAL PRESSURE DATA
JANUARY 4-5, 2024

TETRA TECH

FIGURE
A-10



Note:
1. in. W.C. = Inches of water column
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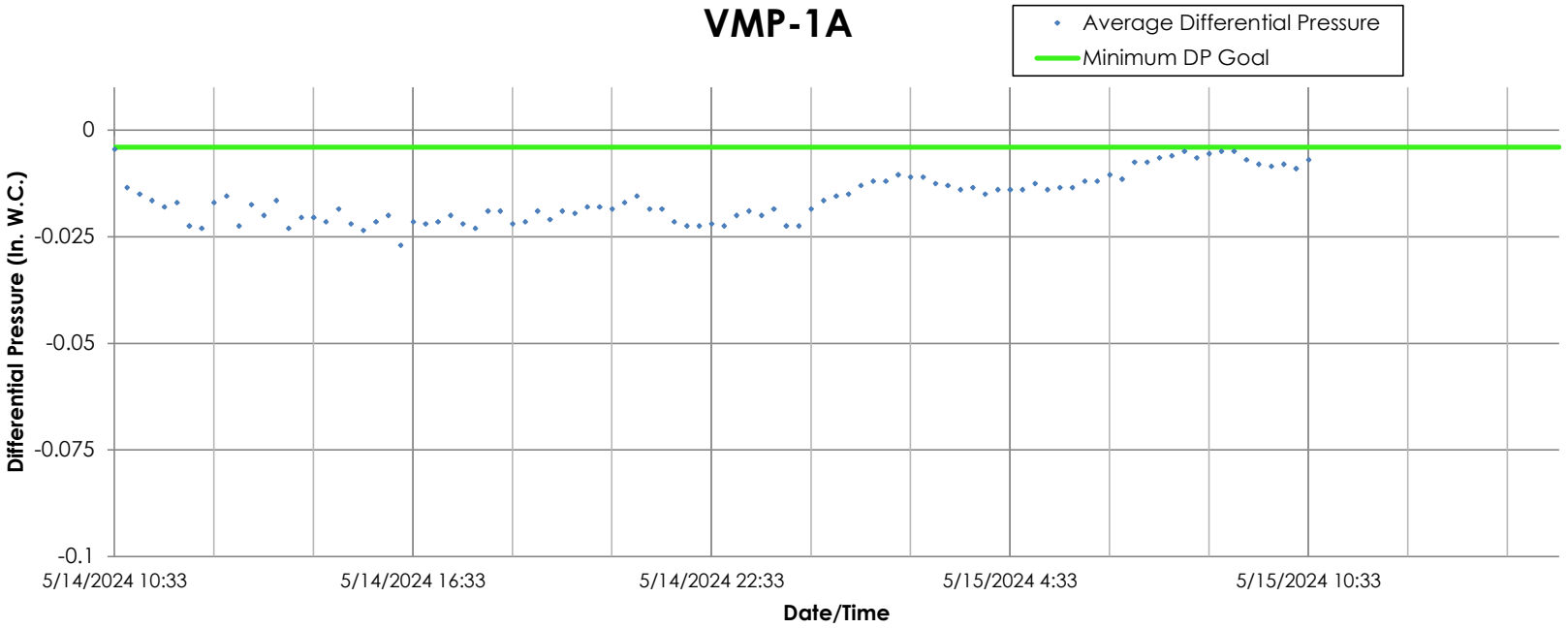
VACUUM MONITORING POINT VMP- 8C
DIFFERENTIAL PRESSURE DATA
JANUARY 4-5, 2024

TETRA TECH

FIGURE
A-11



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

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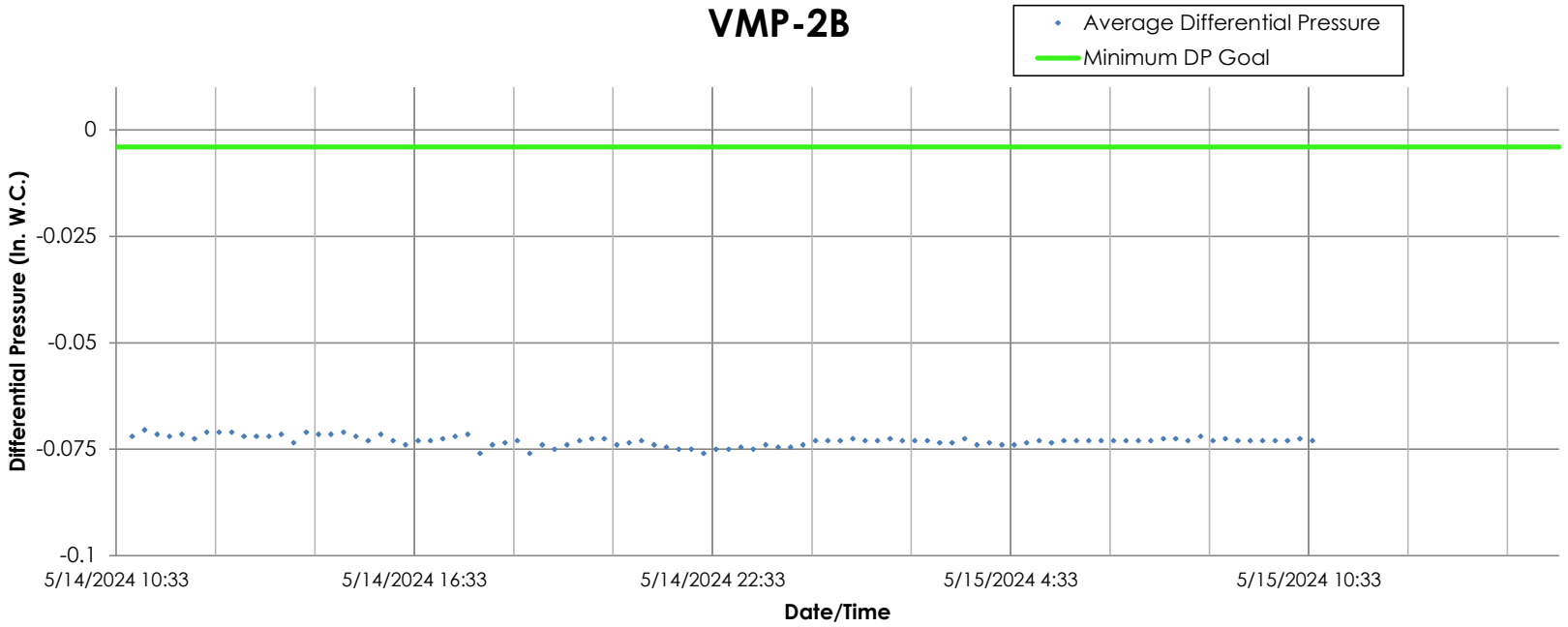
VACUUM MONITORING POINT VMP- 1A
DIFFERENTIAL PRESSURE DATA
MAY 14-15, 2024

TETRA TECH

FIGURE
A-12



Note:
1. in. W.C. = Inches of water column
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2024 SITE MANAGEMENT REPORT
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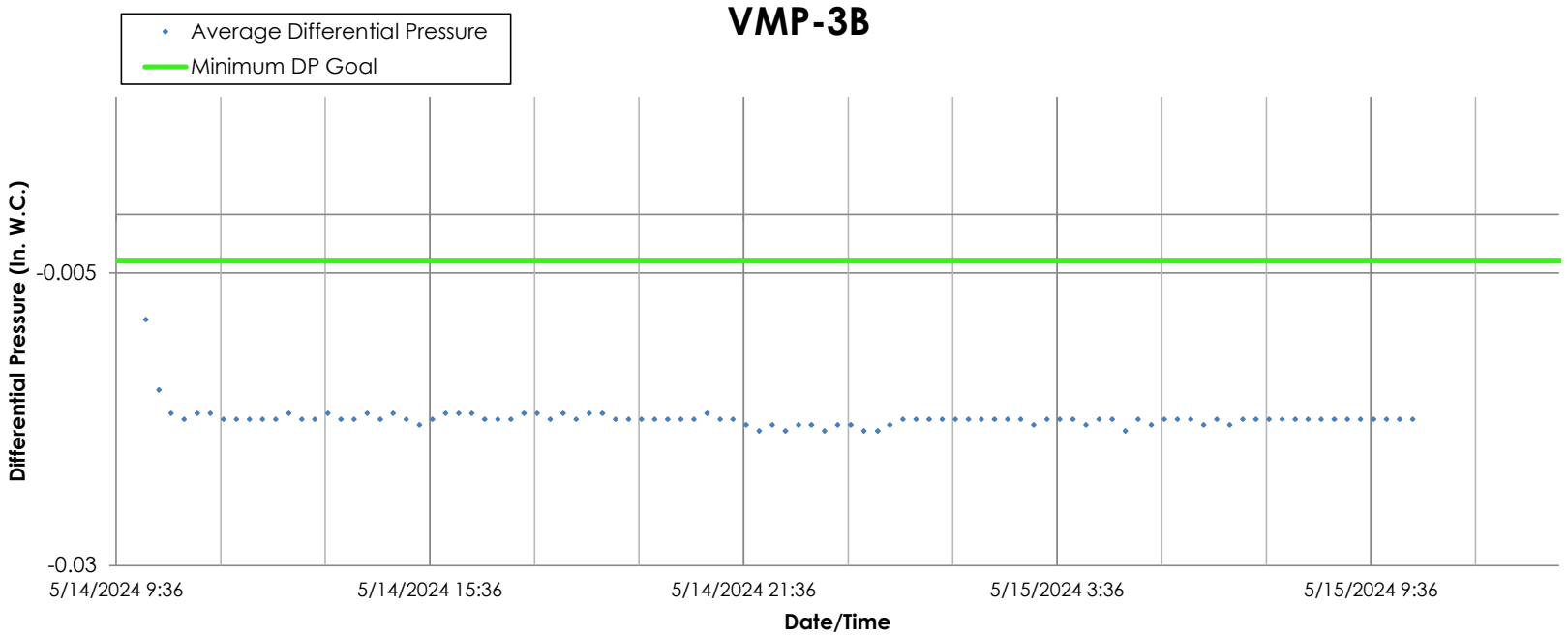
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 2B
DIFFERENTIAL PRESSURE DATA
MAY 14-15, 2024

TETRA TECH

FIGURE
A-13



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

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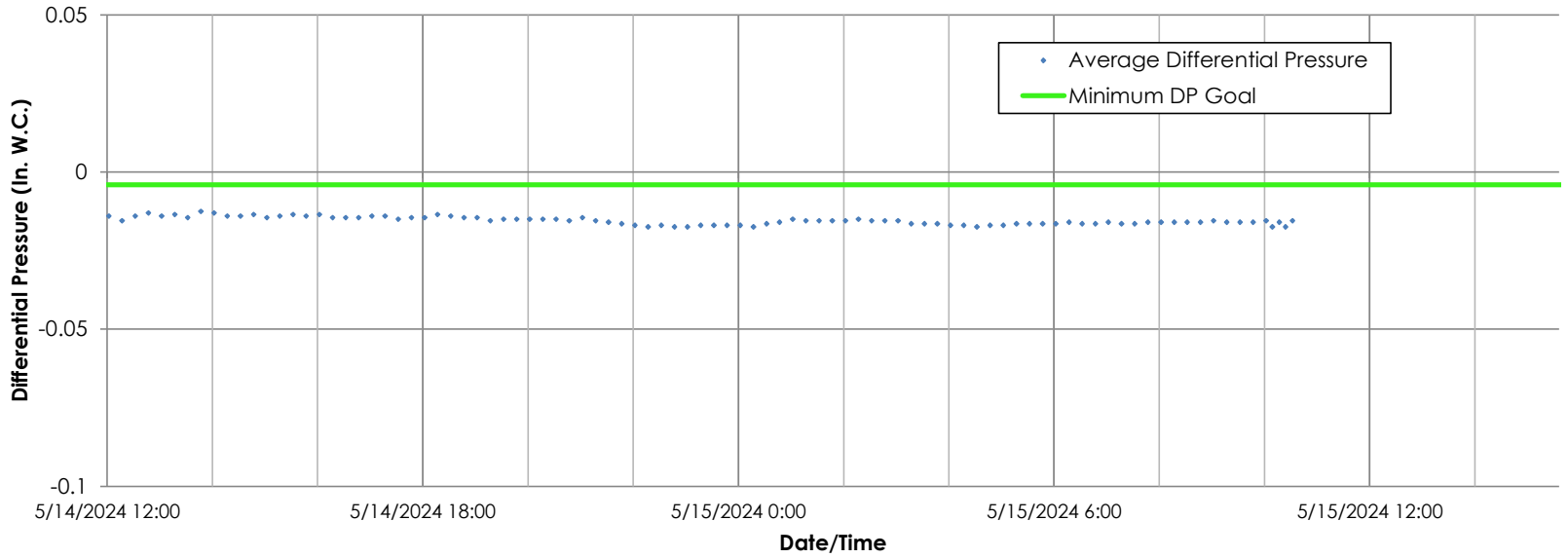
APPENDIX A: Sub-Slab Depressurization System Operation, Maintenance, and Monitoring Performance Report
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 3B
DIFFERENTIAL PRESSURE DATA
MAY 14-15, 2024

TETRA TECH

FIGURE
A-14

VMP-3E



Note:
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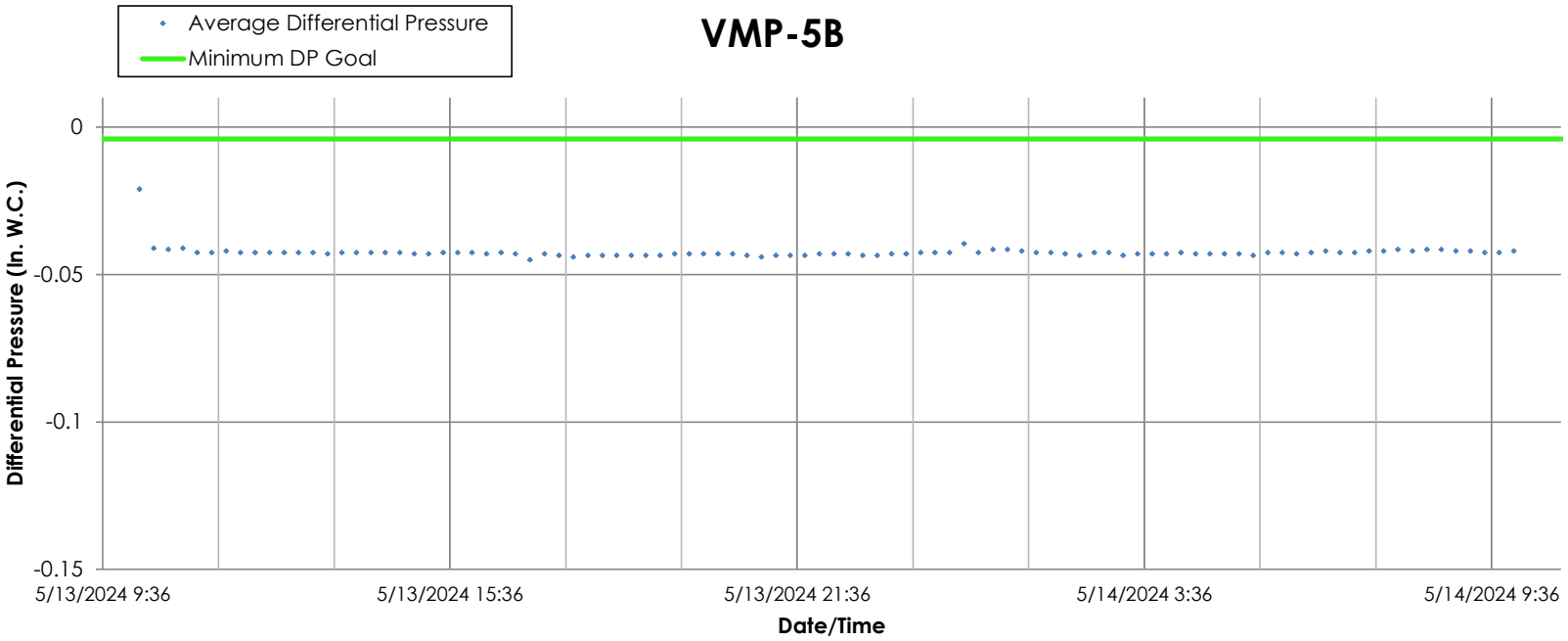
VACUUM MONITORING POINT VMP- 3E
DIFFERENTIAL PRESSURE DATA
MAY 14-15, 2024

TETRA TECH

FIGURE
A-15



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

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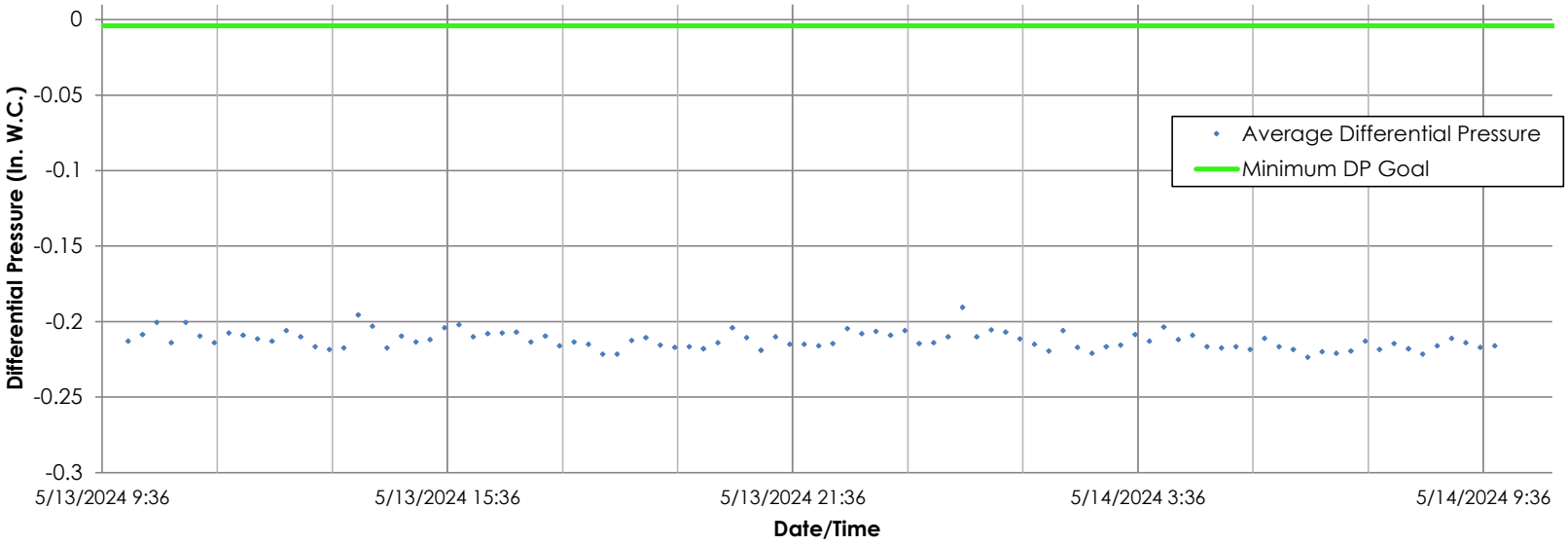
VACUUM MONITORING POINT VMP- 5B
DIFFERENTIAL PRESSURE DATA
MAY 13-14, 2024

TETRA TECH

FIGURE
A-16

VMP-6B



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

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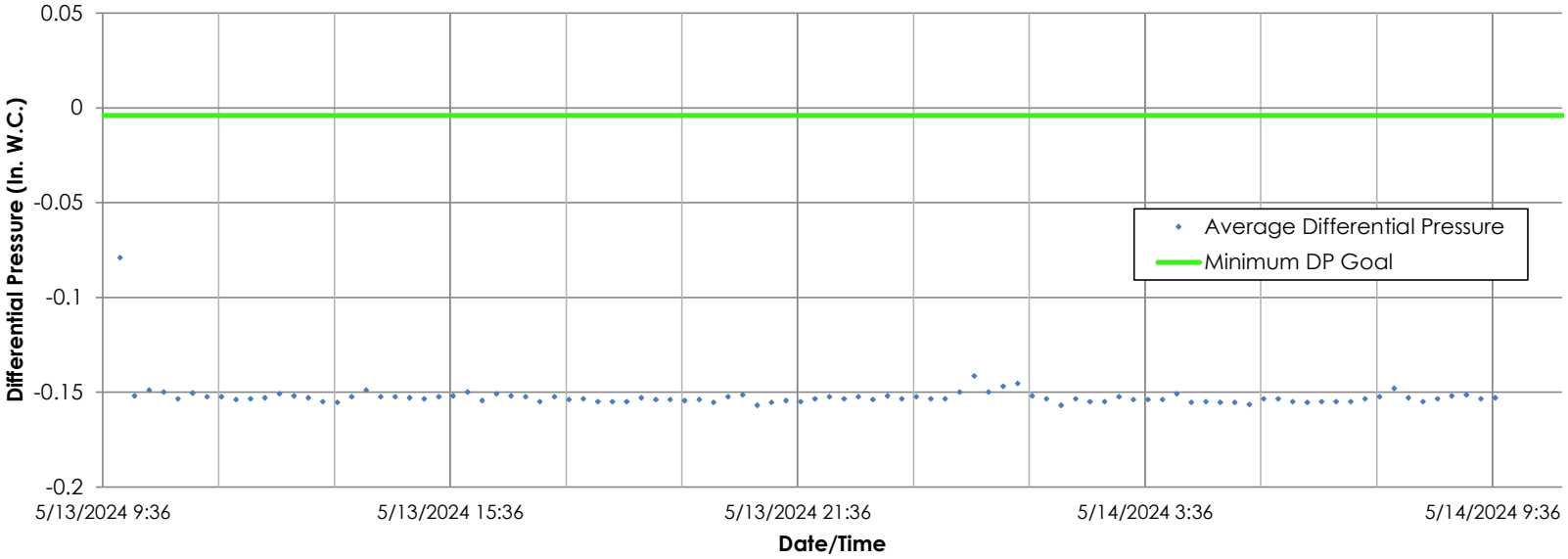
VACUUM MONITORING POINT VMP- 6B
DIFFERENTIAL PRESSURE DATA
MAY 13-14, 2024

TETRA TECH

FIGURE
A-17

VMP-7B



Note:
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2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

2024 SITE MANAGEMENT REPORT
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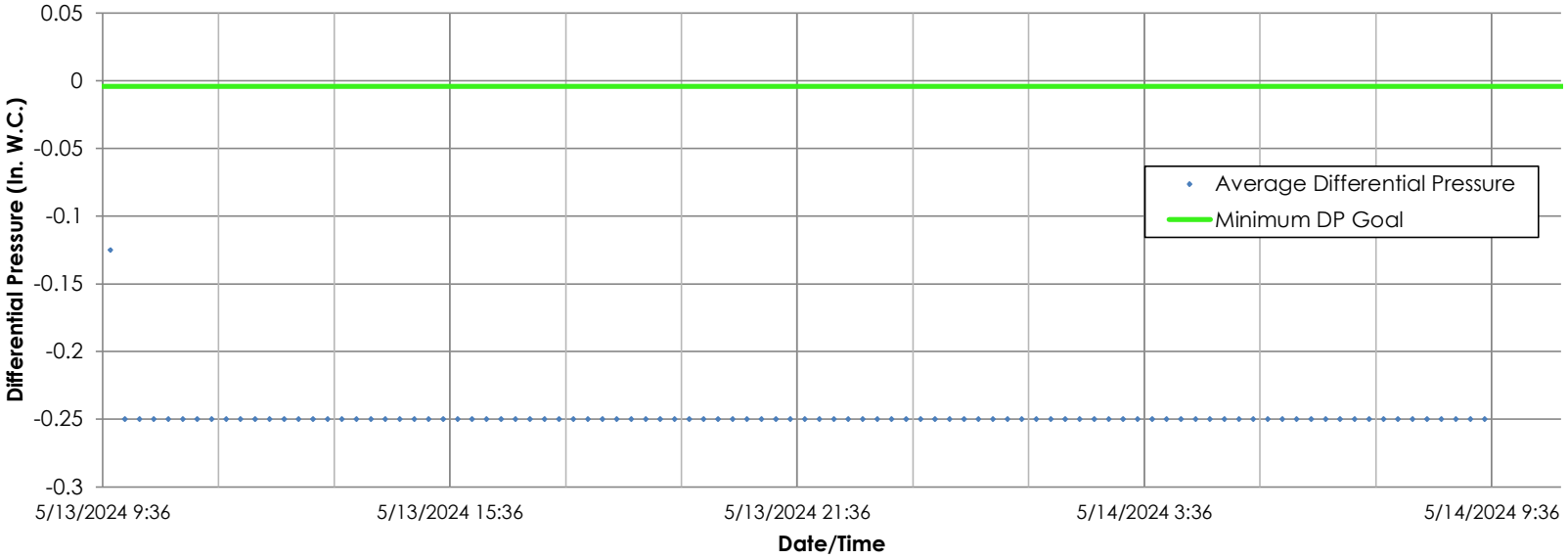
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 7B
DIFFERENTIAL PRESSURE DATA
MAY 13-14, 2024

TETRA TECH

FIGURE
A-18

VMP-8B



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

2024 SITE MANAGEMENT REPORT
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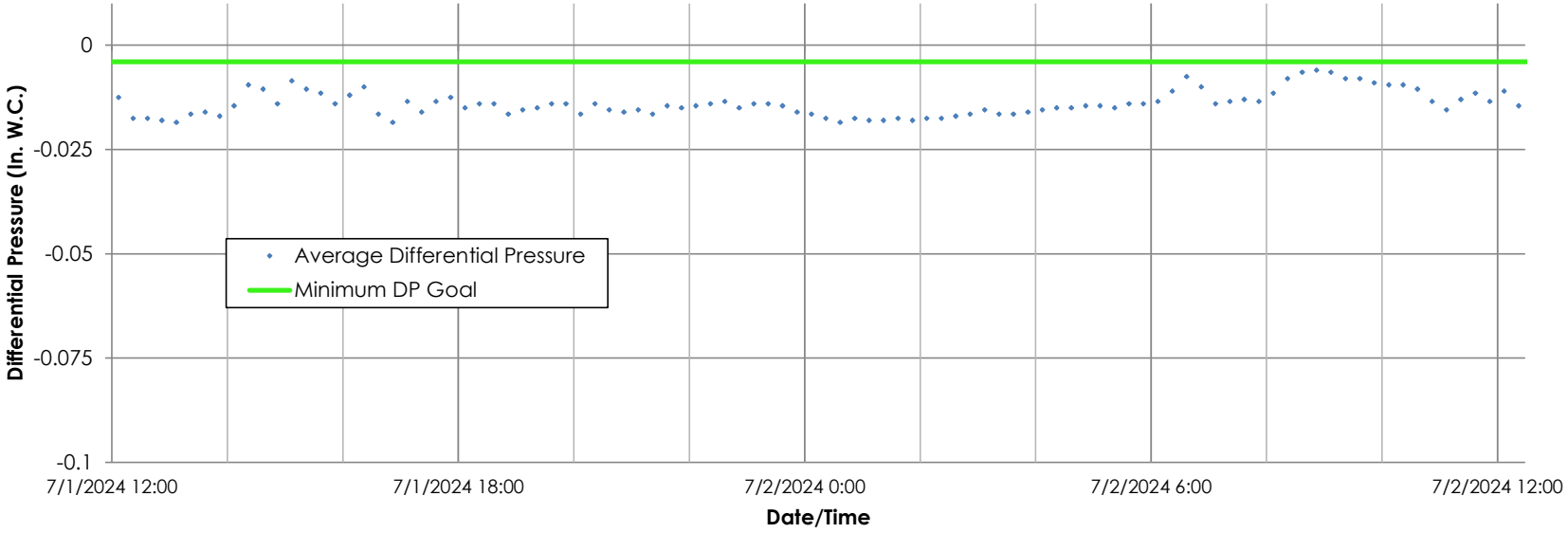
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 8B
DIFFERENTIAL PRESSURE DATA
MAY 13-14, 2024

TETRA TECH

FIGURE
A-19

VMP-1A



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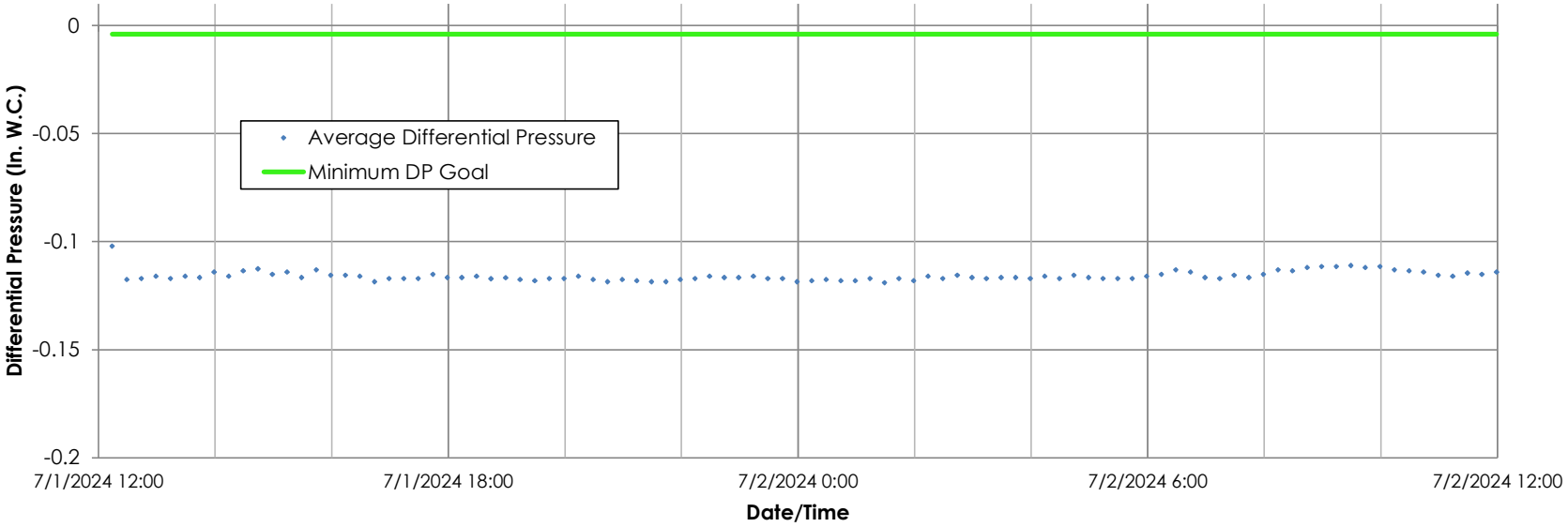
VACUUM MONITORING POINT VMP- 1A
DIFFERENTIAL PRESSURE DATA
JULY 1-2, 2024

TETRA TECH

FIGURE
A-20

VMP-1C



Note:
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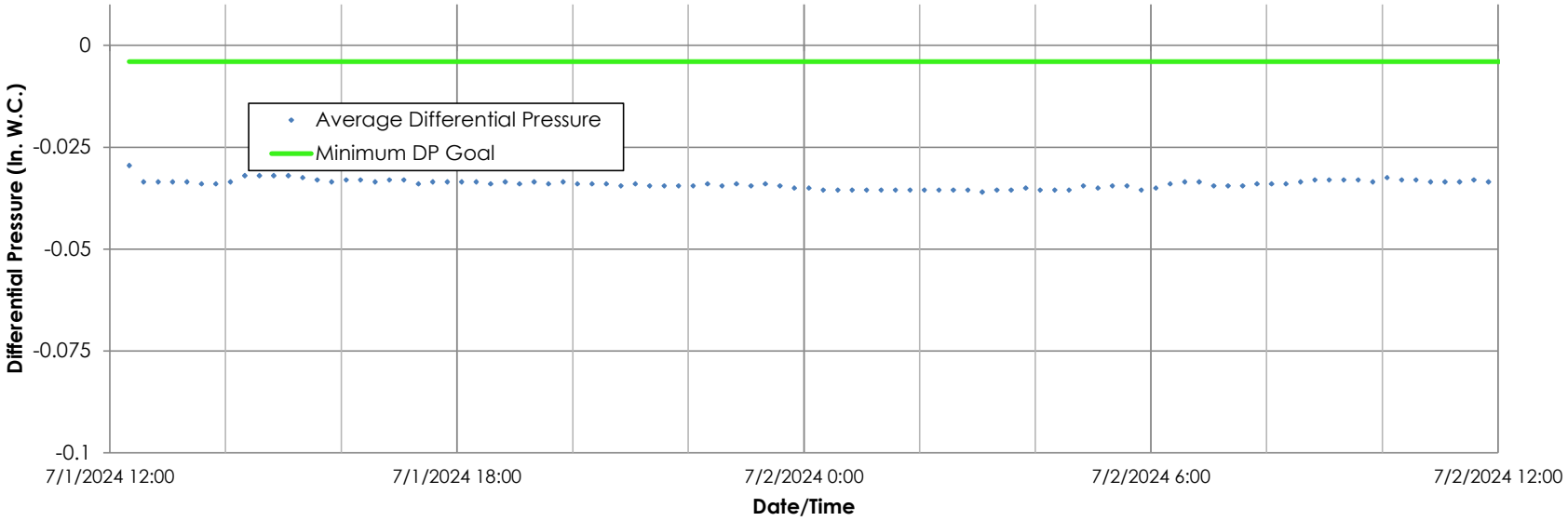
VACUUM MONITORING POINT VMP- 1C
DIFFERENTIAL PRESSURE DATA
JULY 1-2, 2024

TETRA TECH

FIGURE
A-21

VMP-3C



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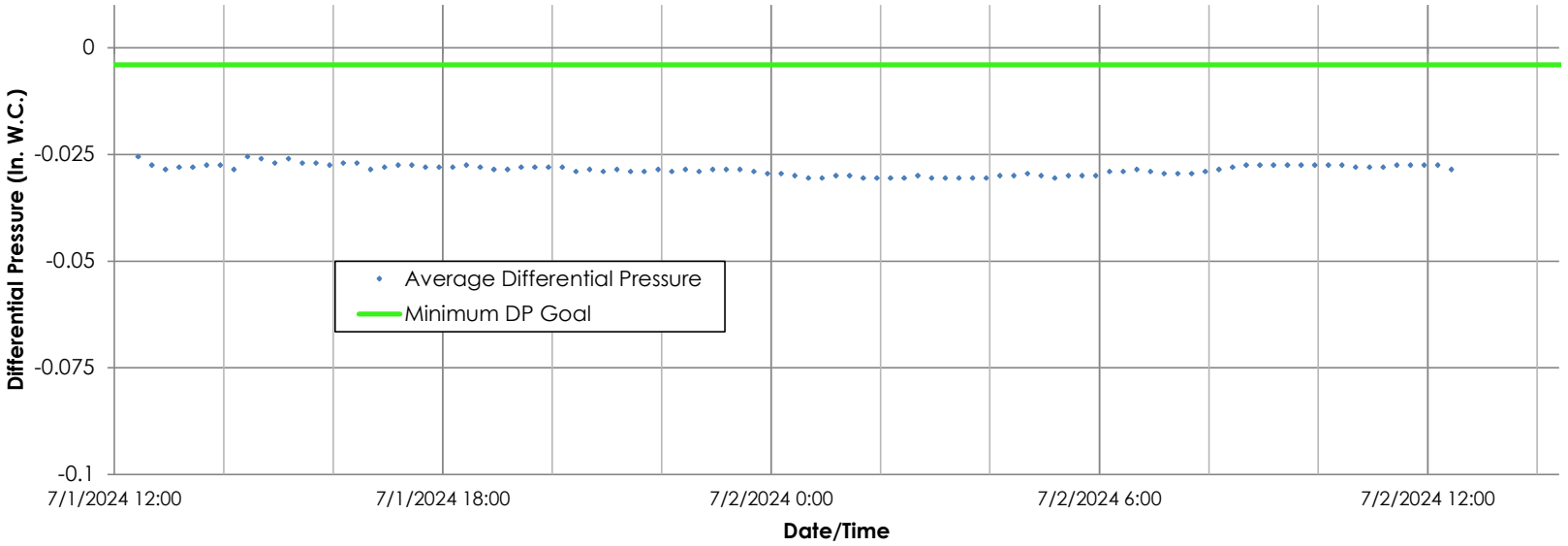
VACUUM MONITORING POINT VMP- 3C
DIFFERENTIAL PRESSURE DATA
JULY 1-2, 2024

TETRA TECH

FIGURE
A-22

VMP-3D



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1. in. W.C. = Inches of water column
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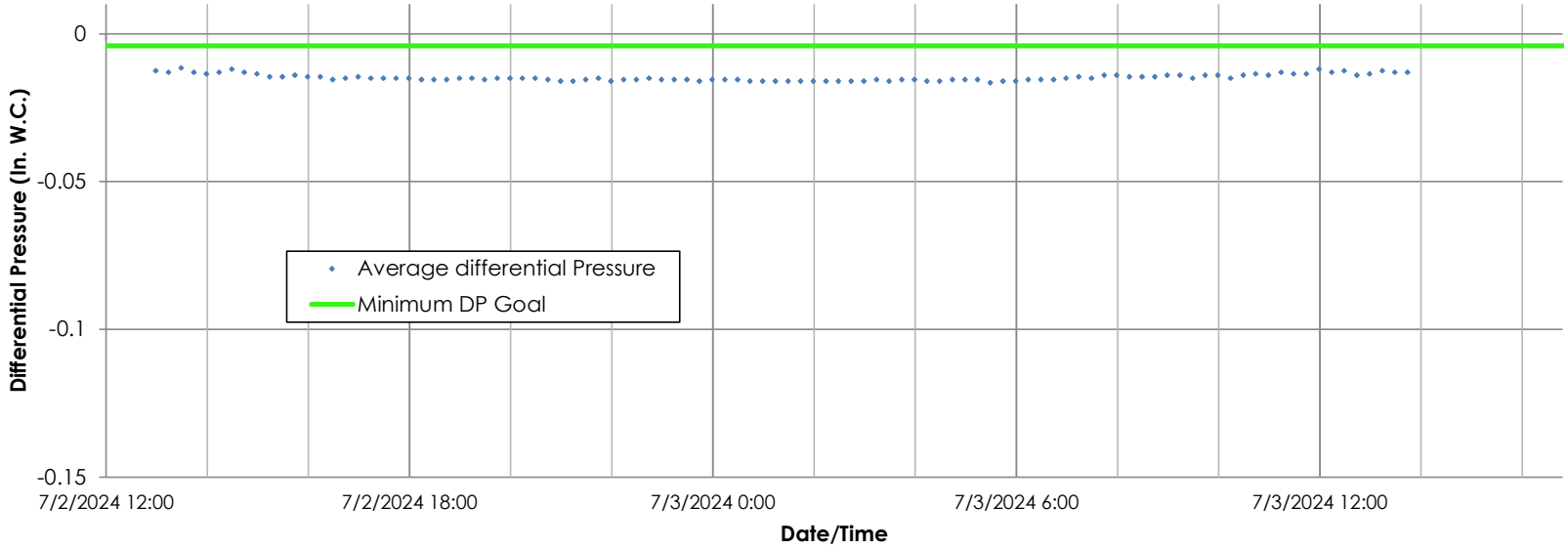
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 3D
DIFFERENTIAL PRESSURE DATA
JULY 1-2, 2024

TETRA TECH

FIGURE
A-23

VMP-3E



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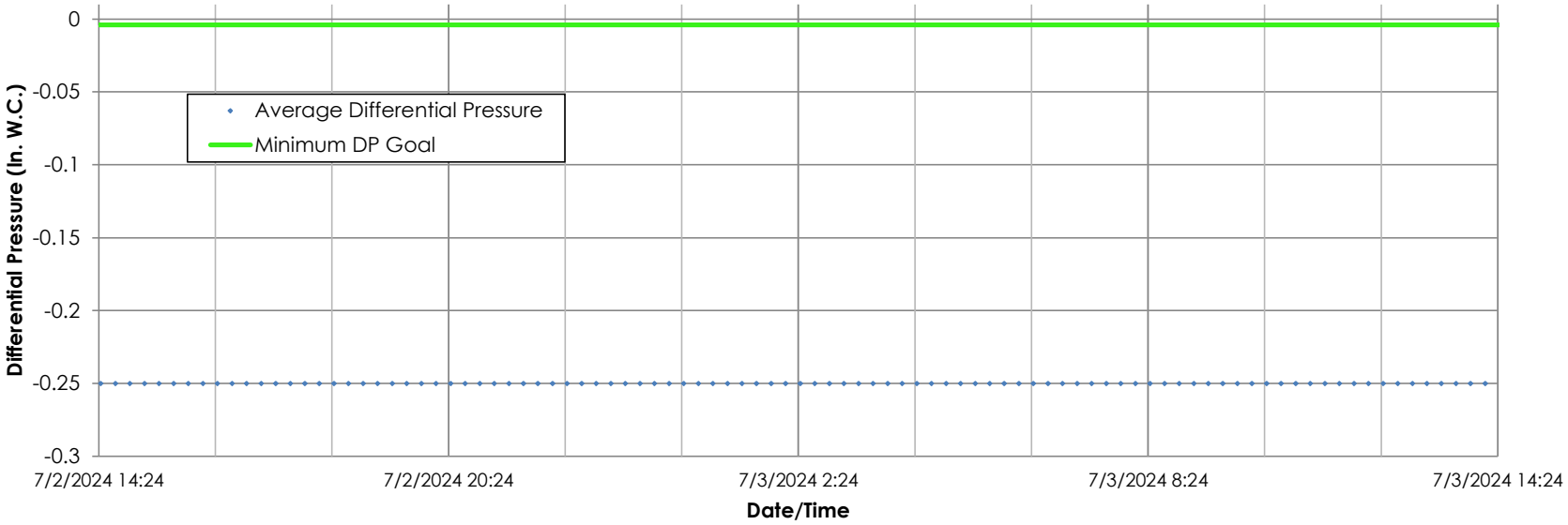
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 3E
DIFFERENTIAL PRESSURE DATA
JULY 2-3, 2024

TETRA TECH

FIGURE
A-24

VMP-5



Note:
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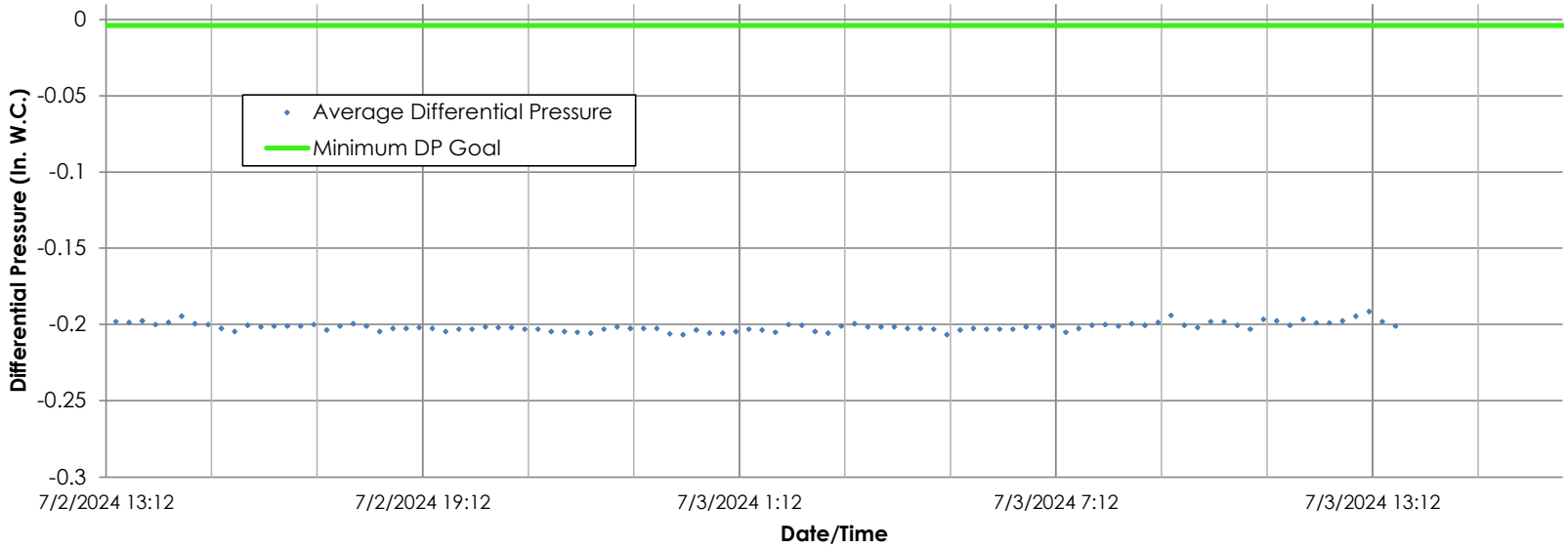
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 5
DIFFERENTIAL PRESSURE DATA
JULY 2-3, 2024

TETRA TECH

FIGURE
A-25

VMP-6



Note:
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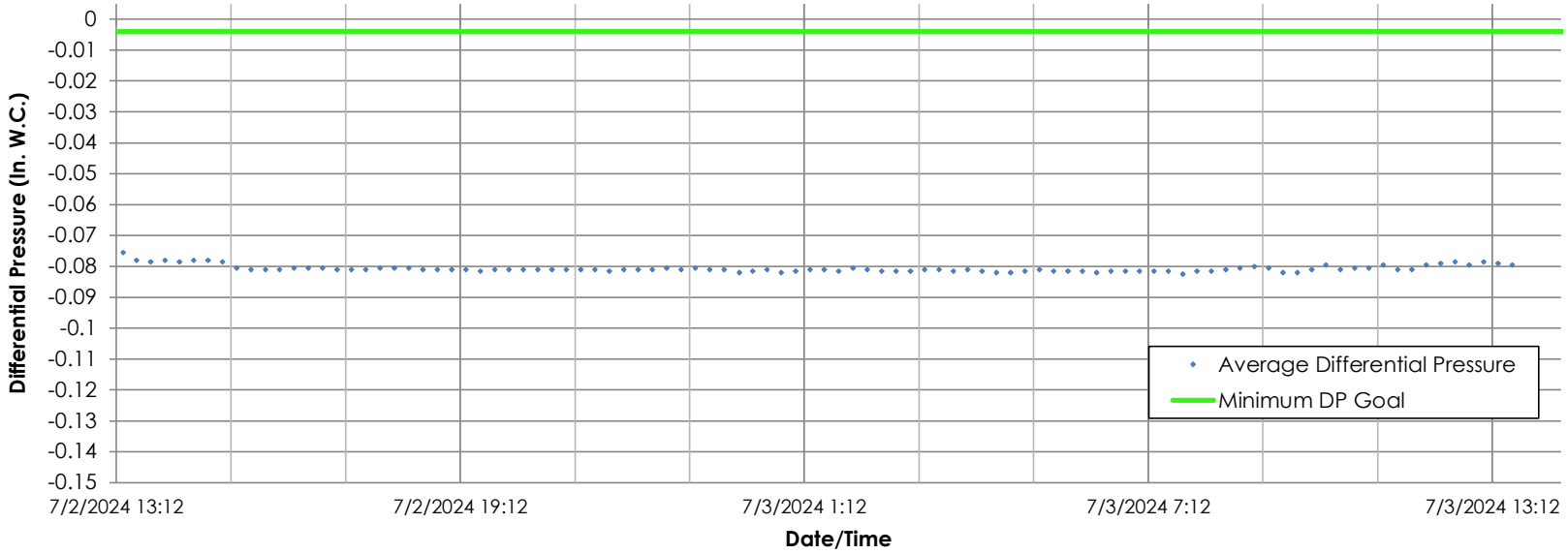
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 6
DIFFERENTIAL PRESSURE DATA
JULY 2-3, 2024

TETRA TECH

FIGURE
A-26

VMP-8C



Note:
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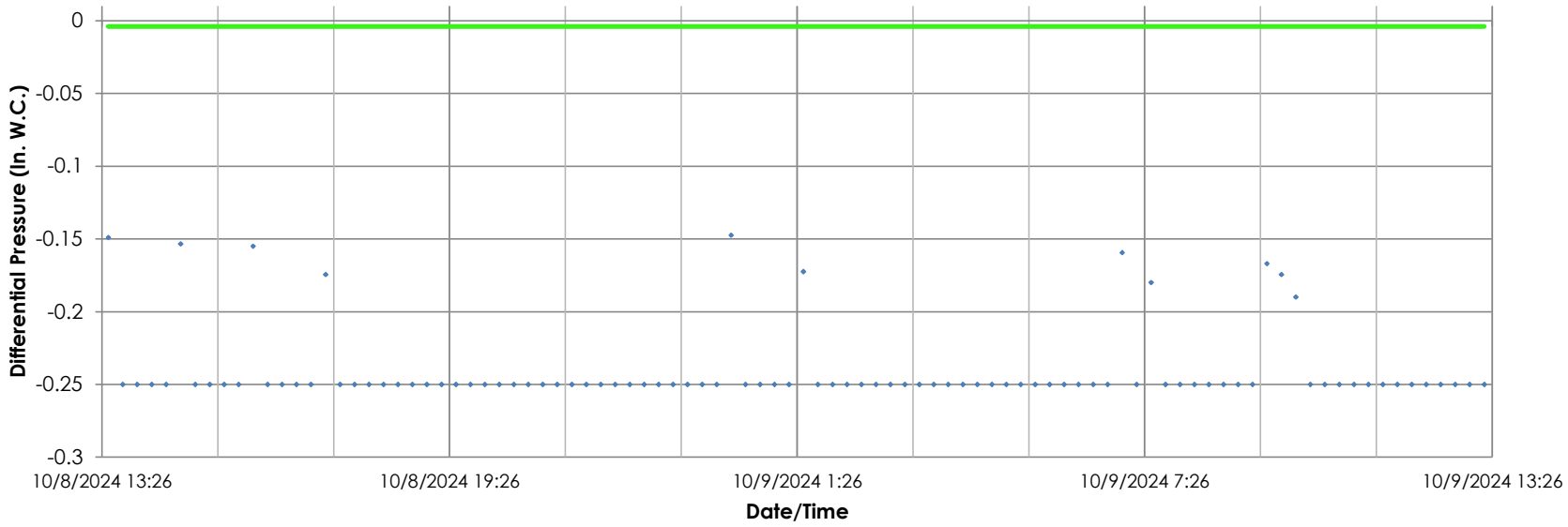
VACUUM MONITORING POINT VMP- 8C
DIFFERENTIAL PRESSURE DATA
JULY 2-3, 2024

TETRA TECH

FIGURE
A-27

VMP-1B



Note:
1. in. W.C. = Inches of water column
2. The differential pressure measurement range of the D.P. datalogger instrument is between -0.250 and +0.250. Values exceeding these limits are recorded as the maximum measurable value.

Average Differential Pressure
Minimum DP Goal

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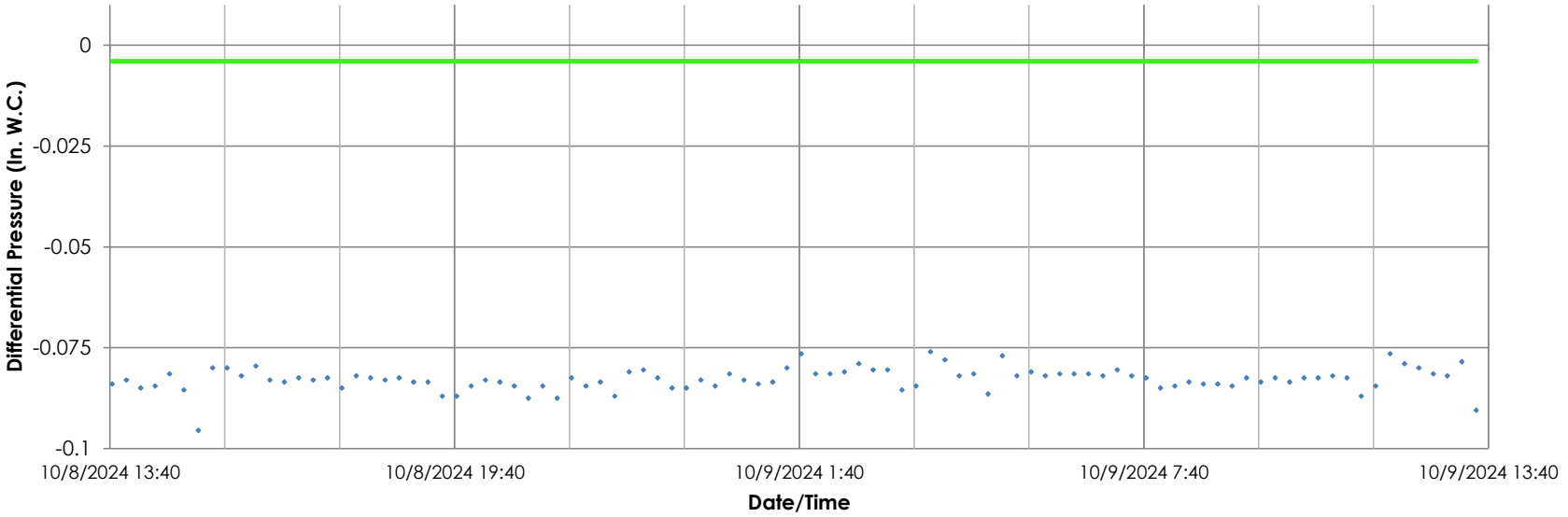
FORMER LOCKHEED MARTIN FRENHC ROAD FACILITY, UTICA, NY

VACUUM MONITORING POINT VMP- 1B
DIFFERENTIAL PRESSURE DATA
OCTOBER 8-9, 2024

TETRA TECH

FIGURE
A-28

VMP-2C



Note:
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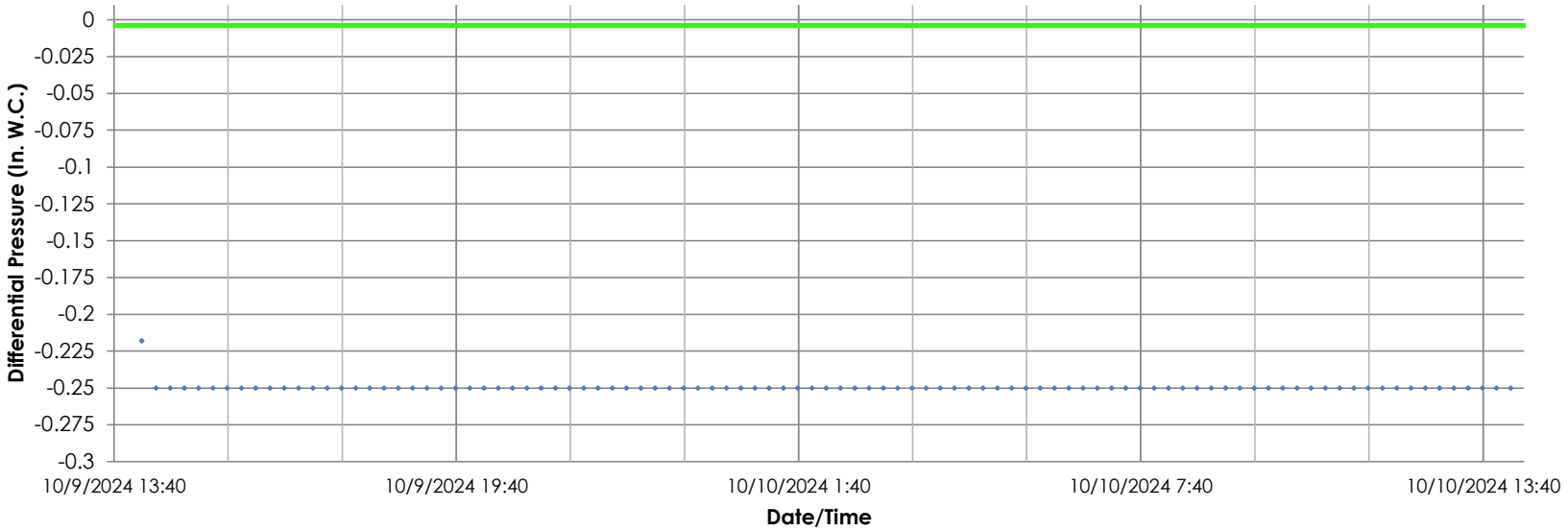
VACUUM MONITORING POINT VMP- 2C
DIFFERENTIAL PRESSURE DATA
OCTOBER 8-9, 2024

TETRA TECH

FIGURE
A-29

VMP-7A



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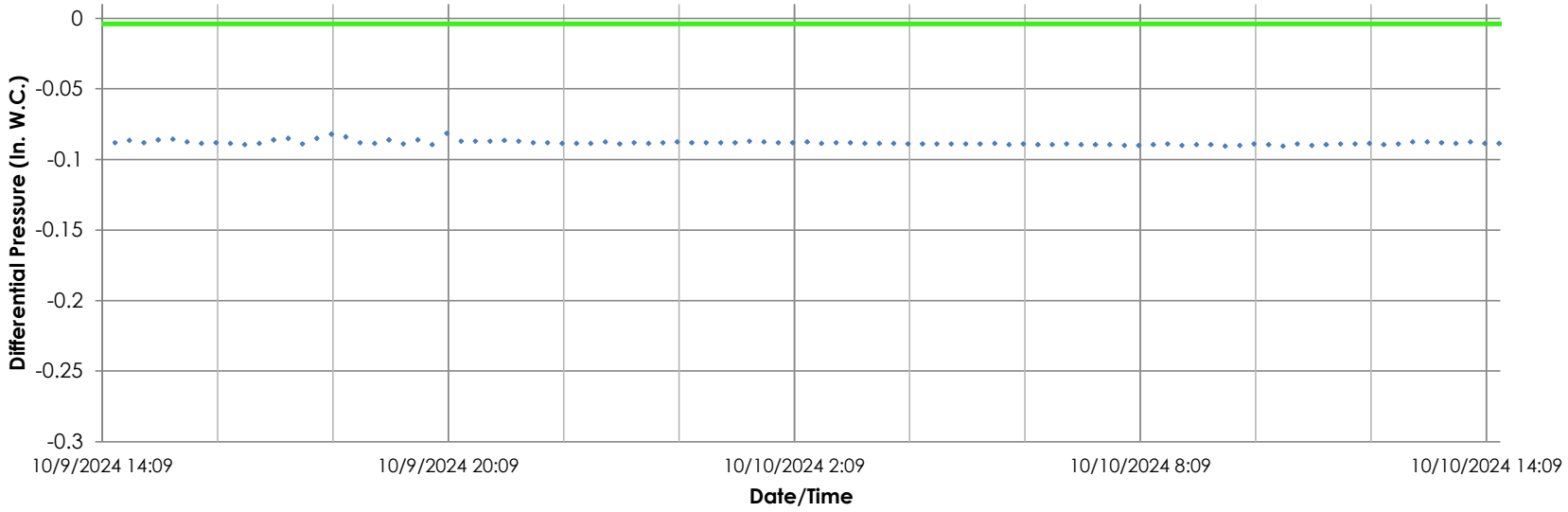
VACUUM MONITORING POINT VMP- 7A
DIFFERENTIAL PRESSURE DATA
OCTOBER 9-10, 2024

TETRA TECH

FIGURE
A-30

VMP-8C



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Average Differential Pressure
Minimum DP Goal

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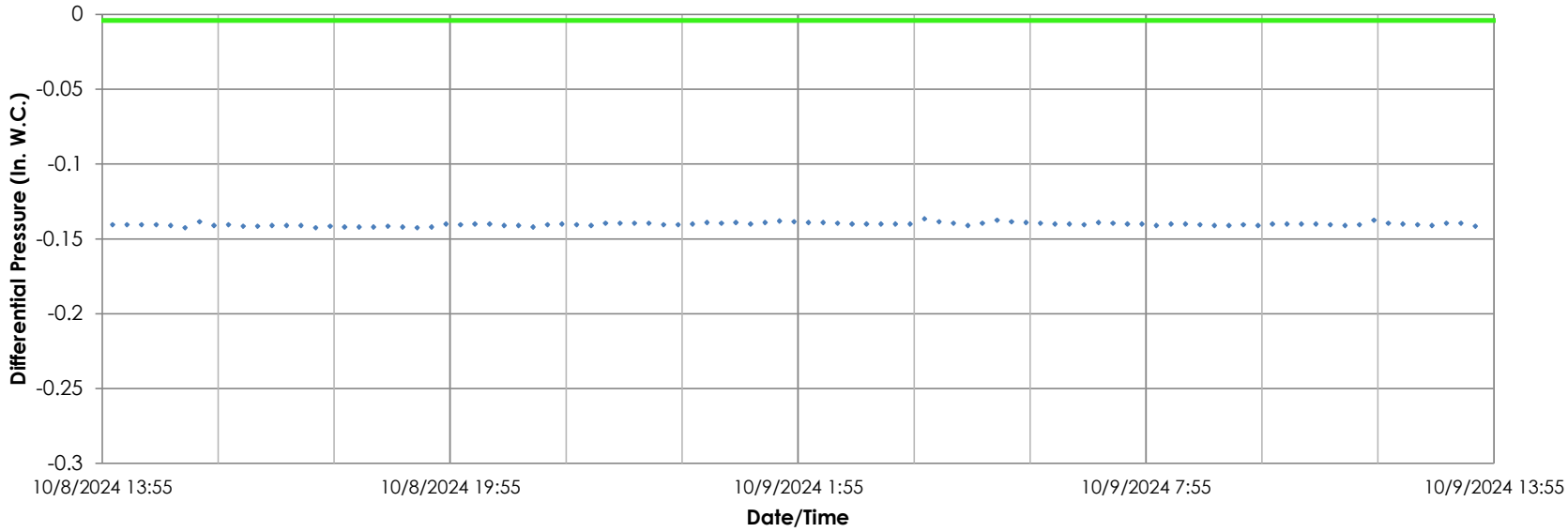
VACUUM MONITORING POINT VMP- 8C
DIFFERENTIAL PRESSURE DATA
OCTOBER 9-10, 2024

TETRA TECH

FIGURE
A-31

VMP-8D



Note:
1. in. W.C. = Inches of water column
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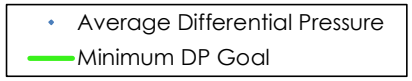

2024 SITE MANAGEMENT REPORT
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VACUUM MONITORING POINT VMP- 8D
DIFFERENTIAL PRESSURE DATA
OCTOBER 8-9, 2024

TETRA TECH

FIGURE
A-32

APPENDICES

Appendix A-1

SSDS OM&M Log Sheets

Completed OM&M Log Sheets

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date 1/12/2024 Time 11:00 am

Technician Steve McCarthy

VAPOR SAMPLING LOCATION

PID Tag:*SP-303* Time 11:15 am

Vapor Sample Collected? ◯ Yes ◯ No

Condensate Present in Sample? ◯ Yes ◯ No

Canister #	Canister Vacuum at Start (in. Hg)	Canister Vacuum at End (in. Hg)
2325	29	10

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

24 HOUR CONTINUOUS SUBSLAB MONITORING SCHEDULE

VMP Location	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
VMP-1A	X	X	X	X
VMP-1B				X
VMP-1C			X	
VMP-2A	X			
VMP-2B		X		
VMP-2C				X
VMP-3A	X			
VMP-3B		X		
VMP-3C			X	
VMP-3D			X	
VMP-3E	X	X	X	X
VMP-4	X			
VMP-5			X	
VMP-5A	X			
VMP-5B		X		
VMP-6			X	
VMP-6A				X
VMP-6B		X		
VMP-7				X
VMP-7A	X			X
VMP-7B		X		
VMP-8A	X			
VMP-8B		X		
VMP-8C	X		X	X
VMP-8D				X

VACUUM MONITORING POINTS -- DIFFERENTIAL PRESSURE (in. W.C.)

VMP-1A	VMP-1B	VMP-1C
0.024	0.688	0.048
VMP-2A	VMP-2B	VMP-2C
0.084	0.178	0.137
VMP-3A	VMP-3B	VMP-3C
0.182	0.006	0.032
VMP-3D	VMP-3E	VMP-4
0.018	0.013	0.045
VMP-5	VMP-5A	VMP-5B
1.313	0.159	0.052
VMP-6	VMP-6A	VMP-6B
0.408	1.186	0.486
VMP-7	VMP-7A	VMP-7B
1.400	10.0	0.366
VMP-8A	VMP-8B	VMP-8C
3.943	11	0.188
VMP-8D		
0.300		

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

SUB-SLAB DEPRESSURIZATION SUMPS

SDS-1 Orifice Plate Differential Pressure Typical Range = 0.03-0.07

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
80	0.02	7

SDS-2 Orifice Plate Differential Pressure Typical Range = 0.02-0.09

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
1.0	0.04	1

SDS-3 Orifice Plate Differential Pressure Typical Range = 0.2-1.1

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2.4	0.94	1

SDS-4 Orifice Plate Differential Pressure Typical Range = 0.80-2.3

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2	2.5	1

SDS-5 Orifice Plate Differential Pressure Typical Range = 0.08-0.30

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.21	5

SDS-6 Orifice Plate Differential Pressure Typical Range = 0.02-0.08

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.020	4

SDS-7 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.02	7

SDS-8 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
78	0.9	7

SDS-9 Orifice Plate Differential Pressure Typical Range = 0.5 - 1.0

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
10	0.82	1

CRITICAL DEVICE/ALARM TESTING

Test the following critical alarms (note that the system must be in AUTO to observe proper alarm response)

Vacuum Transmitter

Corresponding Transmitter/Sensor: *VT-201*

PLC Alarm Name: *VA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Flow Transmitter

Corresponding Transmitter/Sensor: *FT-301*

PLC Alarm Name: *FA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Pressure Transmitter

Corresponding Transmitter/Sensor: *PT-201*

PLC Alarm Name: *PA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-201*

PLC Alarm Name: *TA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-301*

PLC Alarm Name: *TA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Air Water Separator High Level Switch

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *AWS_HI*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to tank until level switch was triggered.

Air Water Separator High-High Level Switch

Corresponding Transmitter/Sensor: *LSHH-201*

PLC Alarm Name: *AWS_HH*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added additional water to tank until level switch was triggered.

Wet Floor Sensor

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *FLRWET*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to sensor to trigger alarm.

CRITICAL DEVICE CORRECTIVE ACTION LOG SHEET

Date 1/2/2024 Time 11:30 am

Critical Device Failure:

None

Device Failure:

None

Corrective Action:

None

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328 (fpm)
	114 (cfm)
Note position of HX-300 H-O-A switch	Auto
Electrical meter reading (KWH)	943392
Surge protector operational?	○ Yes ○ No

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	○ Yes ○ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	○ Yes ○ No
How much in West?	22 inches East? 2 inches
Other notes	

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge ◯ Yes ◯ No

Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	

Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position ☑ Yes ☐ No

☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps? ◯ Yes ◯ No

How much in West? 22 inches East? 2 inches

Other notes

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date 1/12/2024 Time 11:00 am

Technician Steve McCarthy

VAPOR SAMPLING LOCATION

PID Tag:*SP-303* Time 11:15 am

Vapor Sample Collected? ◯ Yes ◯ No

Condensate Present in Sample? ◯ Yes ◯ No

Canister #	Canister Vacuum at Start (in. Hg)	Canister Vacuum at End (in. Hg)
2325	29	10

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

24 HOUR CONTINUOUS SUBSLAB MONITORING SCHEDULE

VMP Location	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
VMP-1A	X	X	X	X
VMP-1B				X
VMP-1C			X	
VMP-2A	X			
VMP-2B		X		
VMP-2C				X
VMP-3A	X			
VMP-3B		X		
VMP-3C			X	
VMP-3D			X	
VMP-3E	X	X	X	X
VMP-4	X			
VMP-5			X	
VMP-5A	X			
VMP-5B		X		
VMP-6			X	
VMP-6A				X
VMP-6B		X		
VMP-7				X
VMP-7A	X			X
VMP-7B		X		
VMP-8A	X			
VMP-8B		X		
VMP-8C	X		X	X
VMP-8D				X

VACUUM MONITORING POINTS -- DIFFERENTIAL PRESSURE (in. W.C.)

VMP-1A	VMP-1B	VMP-1C
0.024	0.688	0.048
VMP-2A	VMP-2B	VMP-2C
0.084	0.178	0.137
VMP-3A	VMP-3B	VMP-3C
0.182	0.006	0.032
VMP-3D	VMP-3E	VMP-4
0.018	0.013	0.045
VMP-5	VMP-5A	VMP-5B
1.313	0.159	0.052
VMP-6	VMP-6A	VMP-6B
0.408	1.186	0.486
VMP-7	VMP-7A	VMP-7B
1.400	10.0	0.366
VMP-8A	VMP-8B	VMP-8C
3.943	11	0.188
VMP-8D		
0.300		

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

SUB-SLAB DEPRESSURIZATION SUMPS

SDS-1 Orifice Plate Differential Pressure Typical Range = 0.03-0.07

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
80	0.02	7

SDS-2 Orifice Plate Differential Pressure Typical Range = 0.02-0.09

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
1.0	0.04	1

SDS-3 Orifice Plate Differential Pressure Typical Range = 0.2-1.1

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2.4	0.94	1

SDS-4 Orifice Plate Differential Pressure Typical Range = 0.80-2.3

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2	2.5	1

SDS-5 Orifice Plate Differential Pressure Typical Range = 0.08-0.30

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.21	5

SDS-6 Orifice Plate Differential Pressure Typical Range = 0.02-0.08

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.020	4

SDS-7 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.02	7

SDS-8 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
78	0.9	7

SDS-9 Orifice Plate Differential Pressure Typical Range = 0.5 - 1.0

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
10	0.82	1

CRITICAL DEVICE/ALARM TESTING

Test the following critical alarms (note that the system must be in AUTO to observe proper alarm response)

Vacuum Transmitter

Corresponding Transmitter/Sensor: *VT-201*

PLC Alarm Name: *VA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Flow Transmitter

Corresponding Transmitter/Sensor: *FT-301*

PLC Alarm Name: *FA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Pressure Transmitter

Corresponding Transmitter/Sensor: *PT-201*

PLC Alarm Name: *PA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-201*

PLC Alarm Name: *TA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-301*

PLC Alarm Name: *TA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Air Water Separator High Level Switch

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *AWS_HI*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to tank until level switch was triggered.

Air Water Separator High-High Level Switch

Corresponding Transmitter/Sensor: *LSHH-201*

PLC Alarm Name: *AWS_HH*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added additional water to tank until level switch was triggered.

Wet Floor Sensor

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *FLRWET*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to sensor to trigger alarm.

CRITICAL DEVICE CORRECTIVE ACTION LOG SHEET

Date 1/2/2024 Time 11:30 am

Critical Device Failure:

None

Device Failure:

None

Corrective Action:

None

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328 (fpm)
	114 (cfm)
Note position of HX-300 H-O-A switch	Auto
Electrical meter reading (KWH)	943392
Surge protector operational?	◯ Yes ◯ No

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No
How much in West?	22 inches East? 2 inches
Other notes	

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date 1/12/2024 Time 11:00 am

Technician Steve McCarthy

VAPOR SAMPLING LOCATION

PID Tag:*SP-303* Time 11:15 am

Vapor Sample Collected? ◯ Yes ◯ No

Condensate Present in Sample? ◯ Yes ◯ No

Canister #	Canister Vacuum at Start (in. Hg)	Canister Vacuum at End (in. Hg)
2325	29	10

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

24 HOUR CONTINUOUS SUBSLAB MONITORING SCHEDULE

VMP Location	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
VMP-1A	X	X	X	X
VMP-1B				X
VMP-1C			X	
VMP-2A	X			
VMP-2B		X		
VMP-2C				X
VMP-3A	X			
VMP-3B		X		
VMP-3C			X	
VMP-3D			X	
VMP-3E	X	X	X	X
VMP-4	X			
VMP-5			X	
VMP-5A	X			
VMP-5B		X		
VMP-6			X	
VMP-6A				X
VMP-6B		X		
VMP-7				X
VMP-7A	X			X
VMP-7B		X		
VMP-8A	X			
VMP-8B		X		
VMP-8C	X		X	X
VMP-8D				X

VACUUM MONITORING POINTS -- DIFFERENTIAL PRESSURE (in. W.C.)

VMP-1A	VMP-1B	VMP-1C
0.024	0.688	0.048
VMP-2A	VMP-2B	VMP-2C
0.084	0.178	0.137
VMP-3A	VMP-3B	VMP-3C
0.182	0.006	0.032
VMP-3D	VMP-3E	VMP-4
0.018	0.013	0.045
VMP-5	VMP-5A	VMP-5B
1.313	0.159	0.052
VMP-6	VMP-6A	VMP-6B
0.408	1.186	0.486
VMP-7	VMP-7A	VMP-7B
1.400	10.0	0.366
VMP-8A	VMP-8B	VMP-8C
3.943	11	0.188
VMP-8D		
0.300		

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

SUB-SLAB DEPRESSURIZATION SUMPS

SDS-1 Orifice Plate Differential Pressure Typical Range = 0.03-0.07

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
80	0.02	7

SDS-2 Orifice Plate Differential Pressure Typical Range = 0.02-0.09

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
1.0	0.04	1

SDS-3 Orifice Plate Differential Pressure Typical Range = 0.2-1.1

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2.4	0.94	1

SDS-4 Orifice Plate Differential Pressure Typical Range = 0.80-2.3

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2	2.5	1

SDS-5 Orifice Plate Differential Pressure Typical Range = 0.08-0.30

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.21	5

SDS-6 Orifice Plate Differential Pressure Typical Range = 0.02-0.08

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.020	4

SDS-7 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.02	7

SDS-8 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
78	0.9	7

SDS-9 Orifice Plate Differential Pressure Typical Range = 0.5 - 1.0

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
10	0.82	1

CRITICAL DEVICE/ALARM TESTING

Test the following critical alarms (note that the system must be in AUTO to observe proper alarm response)

Vacuum Transmitter

Corresponding Transmitter/Sensor: *VT-201*

PLC Alarm Name: *VA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Flow Transmitter

Corresponding Transmitter/Sensor: *FT-301*

PLC Alarm Name: *FA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Pressure Transmitter

Corresponding Transmitter/Sensor: *PT-201*

PLC Alarm Name: *PA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-201*

PLC Alarm Name: *TA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-301*

PLC Alarm Name: *TA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Air Water Separator High Level Switch

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *AWS_HI*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to tank until level switch was triggered.

Air Water Separator High-High Level Switch

Corresponding Transmitter/Sensor: *LSHH-201*

PLC Alarm Name: *AWS_HH*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added additional water to tank until level switch was triggered.

Wet Floor Sensor

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *FLRWET*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to sensor to trigger alarm.

CRITICAL DEVICE CORRECTIVE ACTION LOG SHEET

Date 1/2/2024 Time 11:30 am

Critical Device Failure:

None

Device Failure:

None

Corrective Action:

None

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date 1/12/2024 Time 11:00 am

Technician Steve McCarthy

VAPOR SAMPLING LOCATION

PID Tag:*SP-303* Time 11:15 am

Vapor Sample Collected? ◯ Yes ◯ No

Condensate Present in Sample? ◯ Yes ◯ No

Canister #	Canister Vacuum at Start (in. Hg)	Canister Vacuum at End (in. Hg)
2325	29	10

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

24 HOUR CONTINUOUS SUBSLAB MONITORING SCHEDULE

VMP Location	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
VMP-1A	X	X	X	X
VMP-1B				X
VMP-1C			X	
VMP-2A	X			
VMP-2B		X		
VMP-2C				X
VMP-3A	X			
VMP-3B		X		
VMP-3C			X	
VMP-3D			X	
VMP-3E	X	X	X	X
VMP-4	X			
VMP-5			X	
VMP-5A	X			
VMP-5B		X		
VMP-6			X	
VMP-6A				X
VMP-6B		X		
VMP-7				X
VMP-7A	X			X
VMP-7B		X		
VMP-8A	X			
VMP-8B		X		
VMP-8C	X		X	X
VMP-8D				X

VACUUM MONITORING POINTS -- DIFFERENTIAL PRESSURE (in. W.C.)

VMP-1A	VMP-1B	VMP-1C
0.024	0.688	0.048
VMP-2A	VMP-2B	VMP-2C
0.084	0.178	0.137
VMP-3A	VMP-3B	VMP-3C
0.182	0.006	0.032
VMP-3D	VMP-3E	VMP-4
0.018	0.013	0.045
VMP-5	VMP-5A	VMP-5B
1.313	0.159	0.052
VMP-6	VMP-6A	VMP-6B
0.408	1.186	0.486
VMP-7	VMP-7A	VMP-7B
1.400	10.0	0.366
VMP-8A	VMP-8B	VMP-8C
3.943	11	0.188
VMP-8D		
0.300		

Definitions: NR= Not Recorded
SP = Sample Port
PID = Piping and Instrumentation Design
in. Hg. - inches of mercury
SDS = Sub-Slab Depressurization Sump
VOCs = Volatile Organic Compounds
VMP = Vacuum Monitoring Point

SUB-SLAB DEPRESSURIZATION SUMPS

SDS-1 Orifice Plate Differential Pressure Typical Range = 0.03-0.07

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
80	0.02	7

SDS-2 Orifice Plate Differential Pressure Typical Range = 0.02-0.09

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
1.0	0.04	1

SDS-3 Orifice Plate Differential Pressure Typical Range = 0.2-1.1

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2.4	0.94	1

SDS-4 Orifice Plate Differential Pressure Typical Range = 0.80-2.3

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
2	2.5	1

SDS-5 Orifice Plate Differential Pressure Typical Range = 0.08-0.30

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.21	5

SDS-6 Orifice Plate Differential Pressure Typical Range = 0.02-0.08

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.020	4

SDS-7 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
79	0.02	7

SDS-8 Orifice Plate Differential Pressure Typical Range = 0.02-0.04

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
78	0.9	7

SDS-9 Orifice Plate Differential Pressure Typical Range = 0.5 - 1.0

Induced Vacuum (in. W.C.)	Orifice Plate Differential Pressure (in. W.C)	FCV Position (turns open)
10	0.82	1

CRITICAL DEVICE/ALARM TESTING

Test the following critical alarms (note that the system must be in AUTO to observe proper alarm response)

Vacuum Transmitter

Corresponding Transmitter/Sensor: *VT-201*

PLC Alarm Name: *VA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Flow Transmitter

Corresponding Transmitter/Sensor: *FT-301*

PLC Alarm Name: *FA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Pressure Transmitter

Corresponding Transmitter/Sensor: *PT-201*

PLC Alarm Name: *PA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-201*

PLC Alarm Name: *TA_201*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Temperature Transmitter

Corresponding Transmitter/Sensor: *TT-301*

PLC Alarm Name: *TA_301*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Moved the setpoint to trigger alarm.

Air Water Separator High Level Switch

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *AWS_HI*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to tank until level switch was triggered.

Air Water Separator High-High Level Switch

Corresponding Transmitter/Sensor: *LSHH-201*

PLC Alarm Name: *AWS_HH*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added additional water to tank until level switch was triggered.

Wet Floor Sensor

Corresponding Transmitter/Sensor: *LSH-201*

PLC Alarm Name: *FLRWET*

Alarm Type ◯ Fatal ◯ Non-Fatal

Caused PLC Alarm State Change? ◯ Yes ◯ No

Caused System Shutdown? ◯ Yes ◯ No

Passed ◯ Yes ◯ No

Notes: Added water to sensor to trigger alarm.

CRITICAL DEVICE CORRECTIVE ACTION LOG SHEET

Date 1/2/2024 Time 11:30 am

Critical Device Failure:

None

Device Failure:

None

Corrective Action:

None

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

OM&M Log Sheet, Sub-Slab Depressurization System, Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York

Date: 1/2/2024 Time: 12:00 pm

Technician: Steve McCarthy

*When on site for other routine **monthly** OM&M, record data included on **pages 1 -5** of this quarterly OM&M Log Sheet/Checklist*

SYSTEM STATUS

System operational? (PLC screen indicating system in "AUTO" or "MANUAL" ◯ Auto ◯ Manual

Alarms? (list)

SYSTEM PARAMETER	ID	GAUGE READING		PID TAG	PLC READING	
Air/Water Tank Applied Vacuum	VI-201	92	(in. W.C.)	VT-201	80.2	(in. W.C.)
Post-Blower Temperature	TI-201	180	(°F)	TT-201	182	(°F)
Post-Heat Exchanger Temperature	TI-301	90	(°F)	TT-301	92.7	(°F)
Influent Pitot Tube Differential Pressure	FI-301	0.31	(in. W.C.)	FT-301	104	(cfm)
Post-Blower Pressure	PI-201	1	(in. W.C.)	PT-201	1.8	(in. W.C)
Post-Filter Applied Vacuum	VI-202	9.8	(in. W.C.)			
Pre-Discharge Stack Pressure	PI-301	1	(in. W.C.)			
Post-Discharge Stack Pressure	PI-302	1	(in. W.C.)			

METEORLOGICAL DATA

Ambient Outdoor Temperature (°F): 32

Ambient Indoor Temperature (°F): 35

Barometric Pressure (in Hg): 29.94

Barometric Pressure Trend ◯ Rising ◯ Falling ◯ Other

ADDITIONAL DATA

VFD Frequency (Hz)	50	
Influent Vapor Velocity (from VI-202 location, 1 fpm = 0.086 cfm)	1328	(fpm)
	114	(cfm)
Note position of HX-300 H-O-A switch	Auto	
Electrical meter reading (KWH)	943392	
Surge protector operational?	◯ Yes ◯ No	

SYSTEM WATER/CONDENSATE INSPECTION

Was water present in AWS-200 site gauge	◯ Yes ◯ No
Note if AWS-200 or any other normally closed condensate drain component was drained. Estimate quantity.	

VALVE INSPECTION

Note position of BFV-301, 302 and 303:

BFV-301	Open
BFV-302	Open
BFV-303	Closed
Notes:	
Are condensate drain valves for AWS-200, VPGAC-301 and VPGAC-302 in closed position	☑ Yes ☐ No ☐ Notes

BASEMENT PUMP INSPECTION

Water present in sumps?	◯ Yes ◯ No		
How much in West?	22 inches	East?	2 inches
Other notes			

Critical System Device	Location			
MCC/MCP Mounted Equipment				
System Disconnect	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Blower O-H-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Heat Exchanger H-O-A Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
VFD By-Pass Switch	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
UPS Backup Battery(1)	Inside MCP	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Panel Indicator Lights	MCC Door	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes		
Electrical Hazard Signage	Outside/ Inside MCP and MCC	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Electric meter	Adjacent to MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		
Surge Protection Device	Outside MCC Door	Inspected/Tested?	◯ Yes ◯ No	
		Notes:		

Process Equipment

Vacuum Relief Valve (VRV-200)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		
Filter Element (2)	Pre-Blower	Inspected/Tested?	◯ Yes ◯ No	◯ Pass ◯ Fail
		Notes:		

Field Mounted Equipment

System Exhaust Screen	Post-VPGAC	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Process Valve Locks/ Positions (3)	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Post Blower Piping Connections	Skid/Field	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Heat Trace (4)	AWS-200 VPGAC-301 VPGAC-302 Condensate Drains	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
Fire Extinguisher	Treatment Building Primary Entry/Exit Doorway	Inspected/Tested?	◯ Yes ◯ No
		Notes:	
System Vapor Element Stack	Located on north building exterior wall	Inspected/Tested?	◯ Yes ◯ No
		Notes:	

Definitions:

AWS = Air/Water Separator
MCC = Motor Control Center

MCP = Main Control Panel
VPGAC = Vapor Phase Granular Activated Carbon

VT = Vacuum Transmitter
FT = Flow Transmitter

LS = Level Sensor

B = Blower

NA = Not Applicable

VRV = Vacuum Relief Valve

Notes:

1 - UPS battery backup should be replaced at a minimum, annually or as needed

2 - Filter element F-201 should be replaced at a minimum, annually or as needed

3 - Equipment locations can be found on the process and instrumentation diagram

4 - Heat trace is only used during winter months

Appendix A-2

SSDS Alarm Response Logs

SSDS Alarm Response Tracking Table 2024
Former Lockheed Martin French Road Facility, Utica, NY

Alarm Date/Time	Process Code	Type	Alarm Description	Input	Output	Response Date/Time	Response Time (hours)	Response Type	System Restarted Date/Time	Downtime (days)	Site Visit Date	Time Onsite (hours)	Cause Type	Cause Description	Corrective Action Description
1/16/2024 11:07	27	non-fatal/warning	High Air Flowrate	FT-301	FA_301	1/16/2024 12:00	0.9	Remote Monitoring	1/16/2024 12:30	NA		None	Unknown	Received non-fatal alarm of high flow rate.	Tetra Tech logged in remotely and re-started system. System operating normally.
7/15/2024 7:00	MC_SYS ON	non-fatal/warning	Missed ProControl Communication	NA	NA	7/15/2024 16:30	9.5	Site Visit		NA	7/15/2024 16:45	< 2 hours	Unknown	Did not receive the daily system status report	Tetra Tech could not log into Proview. Site visit was performed on 7-15-2024 and confirmed that the system was operating normally.
10/23/2024 13:35	OTHER_SYS OFF	fatal/shutdown	Other	NA	NA	10/25/2024 13:35	48.0	Site Visit	10/25/2024 13:35	2	10/23/2024 13:35	> 2 hours	Other	Received Fatal Alarm	Site visit was performed on 10-23-2024 and found system down due to HH vacuum at SDS-5 due to water pipe failure and High SS vacuum. Shut SDS-5 down until water pipe and area floor repair is completed. Opened SDS-3 one turn to balance flow until SDS-5 coule be restored. Re-started system and confirmed that the system was operating normally.

Notes
White shading = data entry
Blue shading = dropdown list
Gray shading = calculated
Worksheet Password = utica

Appendix A-3

SSDS Laboratory Analytical Reports

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

January 19, 2024

Glenn Netuschil
Tetra Tech - Utica, NY
525 French Road
Utica, NY 13502

Project Location: 525 French Rd, Utica
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 24A1373

Enclosed are results of analyses for samples as received by the laboratory on January 13, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa L. Ferrentino
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Tetra Tech - Utica, NY
525 French Road
Utica, NY 13502
ATTN: Glenn Netuschil

REPORT DATE: 1/19/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24A1373

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 525 French Rd, Utica

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SP-303 Effluent	24A1373-01	Air		-	
				EPA TO-15	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-01

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

Naphthalene
B363468-BS1

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Tetrahydrofuran
24A1373-01[SP-303 Effluent], B363468-BS1, B363468-DUP1

L-05

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Vinyl Acetate
B363468-BS1, B363468-DUP1

R-03

Duplicate RPD outside of control limits. Reduced precision is expected for values near the reporting limit.

Analyte & Samples(s) Qualified:

Chloroform
B363468-DUP1

Heptane
B363468-DUP1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

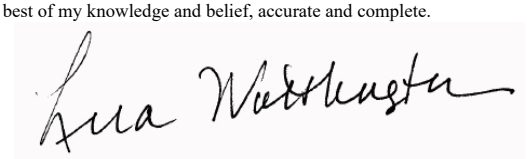
Analyte & Samples(s) Qualified:

Naphthalene
B363468-BS1, S099220-CCV1

Vinyl Acetate
B363468-BS1, B363468-DUP1, S099220-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: 525 French Rd, Utica
Date Received: 1/13/2024
Field Sample #: SP-303 Effluent
Sample ID: 24A1373-01
Sample Matrix: Air
Sampled: 1/12/2024 11:40

Sample Description/Location:
Sub Description/Location:
Canister ID: 2325
Canister Size: 1 liter
Flow Controller ID: 7022
Sample Type: Grab

Work Order: 24A1373
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -10
Receipt Vacuum(in Hg): -10.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	ND	4.0		ND	9.5	2	1/15/24 20:52	KMC
Benzene	0.38	0.10		1.2	0.32	2	1/15/24 20:52	KMC
Benzyl chloride	ND	0.10		ND	0.52	2	1/15/24 20:52	KMC
Bromodichloromethane	ND	0.10		ND	0.67	2	1/15/24 20:52	KMC
Bromoform	ND	0.10		ND	1.0	2	1/15/24 20:52	KMC
Bromomethane	ND	0.10		ND	0.39	2	1/15/24 20:52	KMC
1,3-Butadiene	ND	0.10		ND	0.22	2	1/15/24 20:52	KMC
2-Butanone (MEK)	ND	4.0		ND	12	2	1/15/24 20:52	KMC
Carbon Disulfide	ND	1.0		ND	3.1	2	1/15/24 20:52	KMC
Carbon Tetrachloride	0.14	0.10		0.86	0.63	2	1/15/24 20:52	KMC
Chlorobenzene	ND	0.10		ND	0.46	2	1/15/24 20:52	KMC
Chloroethane	ND	0.10		ND	0.26	2	1/15/24 20:52	KMC
Chloroform	ND	0.10		ND	0.49	2	1/15/24 20:52	KMC
Chloromethane	1.0	0.20		2.2	0.41	2	1/15/24 20:52	KMC
Cyclohexane	ND	0.10		ND	0.34	2	1/15/24 20:52	KMC
Dibromochloromethane	ND	0.10		ND	0.85	2	1/15/24 20:52	KMC
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	1/15/24 20:52	KMC
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	1/15/24 20:52	KMC
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	1/15/24 20:52	KMC
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	1/15/24 20:52	KMC
Dichlorodifluoromethane (Freon 12)	1.2	0.10		5.7	0.49	2	1/15/24 20:52	KMC
1,1-Dichloroethane	ND	0.10		ND	0.40	2	1/15/24 20:52	KMC
1,2-Dichloroethane	ND	0.10		ND	0.40	2	1/15/24 20:52	KMC
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	1/15/24 20:52	KMC
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	1/15/24 20:52	KMC
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	1/15/24 20:52	KMC
1,2-Dichloropropane	ND	0.10		ND	0.46	2	1/15/24 20:52	KMC
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	1/15/24 20:52	KMC
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	1/15/24 20:52	KMC
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	1/15/24 20:52	KMC
1,4-Dioxane	ND	1.0		ND	3.6	2	1/15/24 20:52	KMC
Ethanol	15	4.0		28	7.5	2	1/15/24 20:52	KMC
Ethyl Acetate	ND	1.0		ND	3.6	2	1/15/24 20:52	KMC
Ethylbenzene	ND	0.10		ND	0.43	2	1/15/24 20:52	KMC
4-Ethyltoluene	ND	0.10		ND	0.49	2	1/15/24 20:52	KMC
Heptane	ND	0.10		ND	0.41	2	1/15/24 20:52	KMC
Hexachlorobutadiene	ND	0.10		ND	1.1	2	1/15/24 20:52	KMC

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ANALYTICAL RESULTS

Project Location: 525 French Rd, Utica
Date Received: 1/13/2024
Field Sample #: SP-303 Effluent
Sample ID: 24A1373-01
Sample Matrix: Air
Sampled: 1/12/2024 11:40

Sample Description/Location:
Sub Description/Location:
Canister ID: 2325
Canister Size: 1 liter
Flow Controller ID: 7022
Sample Type: Grab

Work Order: 24A1373
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -10
Receipt Vacuum(in Hg): -10.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	1/15/24 20:52	KMC
2-Hexanone (MBK)	ND	0.10		ND	0.41	2	1/15/24 20:52	KMC
Isopropanol	ND	4.0		ND	9.8	2	1/15/24 20:52	KMC
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	1/15/24 20:52	KMC
Methylene Chloride	ND	1.0		ND	3.5	2	1/15/24 20:52	KMC
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	1/15/24 20:52	KMC
Naphthalene	ND	0.10		ND	0.52	2	1/15/24 20:52	KMC
Propene	ND	4.0		ND	6.9	2	1/15/24 20:52	KMC
Styrene	ND	0.10		ND	0.43	2	1/15/24 20:52	KMC
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	1/15/24 20:52	KMC
Tetrachloroethylene	ND	0.10		ND	0.68	2	1/15/24 20:52	KMC
Tetrahydrofuran	ND	1.0	L-03	ND	2.9	2	1/15/24 20:52	KMC
Toluene	0.30	0.10		1.1	0.38	2	1/15/24 20:52	KMC
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	1/15/24 20:52	KMC
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	1/15/24 20:52	KMC
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	1/15/24 20:52	KMC
Trichloroethylene	ND	0.10		ND	0.54	2	1/15/24 20:52	KMC
Trichlorofluoromethane (Freon 11)	0.52	0.40		2.9	2.2	2	1/15/24 20:52	KMC
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	1/15/24 20:52	KMC
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	1/15/24 20:52	KMC
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	1/15/24 20:52	KMC
Vinyl Acetate	ND	2.0		ND	7.0	2	1/15/24 20:52	KMC
Vinyl Chloride	ND	0.10		ND	0.26	2	1/15/24 20:52	KMC
m&p-Xylene	ND	0.20		ND	0.87	2	1/15/24 20:52	KMC
o-Xylene	ND	0.10		ND	0.43	2	1/15/24 20:52	KMC

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.9	70-130	1/15/24 20:52

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Sample Extraction Data

Prep Method:TO-15 Prep **Analytical Method:EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
24A1373-01 [SP-303 Effluent]	B363468	2	1	N/A	1000	200	200	01/15/24

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B363468 - TO-15 Prep											
Blank (B363468-BLK1)					Prepared & Analyzed: 01/15/24						
Acetone	ND	0.80									
Benzene	ND	0.020									
Benzyl chloride	ND	0.020									
Bromodichloromethane	ND	0.020									
Bromoform	ND	0.020									
Bromomethane	ND	0.020									
1,3-Butadiene	ND	0.020									
2-Butanone (MEK)	ND	0.80									
Carbon Disulfide	ND	0.20									
Carbon Tetrachloride	ND	0.020									
Chlorobenzene	ND	0.020									
Chloroethane	ND	0.020									
Chloroform	ND	0.020									
Chloromethane	ND	0.040									
Cyclohexane	ND	0.020									
Dibromochloromethane	ND	0.020									
1,2-Dibromoethane (EDB)	ND	0.020									
1,2-Dichlorobenzene	ND	0.020									
1,3-Dichlorobenzene	ND	0.020									
1,4-Dichlorobenzene	ND	0.020									
Dichlorodifluoromethane (Freon 12)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
1,2-Dichloroethane	ND	0.020									
1,1-Dichloroethylene	ND	0.020									
cis-1,2-Dichloroethylene	ND	0.020									
trans-1,2-Dichloroethylene	ND	0.020									
1,2-Dichloropropane	ND	0.020									
cis-1,3-Dichloropropene	ND	0.020									
trans-1,3-Dichloropropene	ND	0.020									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020									
1,4-Dioxane	ND	0.20									
Ethanol	ND	0.80									
Ethyl Acetate	ND	0.20									
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.020									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	ND	0.20									
4-Methyl-2-pentanone (MIBK)	ND	0.020									
Naphthalene	ND	0.020									
Propene	ND	0.80									
Styrene	ND	0.020									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B363468 - TO-15 Prep											
Blank (B363468-BLK1)					Prepared & Analyzed: 01/15/24						
1,1,2,2-Tetrachloroethane	ND	0.020									
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
Surrogate: 4-Bromofluorobenzene (1)	*7.58*				*8.00*		*94.8*	*70-130*			
LCS (B363468-BS1)					Prepared & Analyzed: 01/15/24						
Acetone	4.95				5.00		99.1	70-130			
Benzene	4.72				5.00		94.3	70-130			
Benzyl chloride	5.12				5.00		102	70-130			
Bromodichloromethane	4.79				5.00		95.9	70-130			
Bromoform	5.09				5.00		102	70-130			
Bromomethane	5.52				5.00		110	70-130			
1,3-Butadiene	5.02				5.00		100	70-130			
2-Butanone (MEK)	4.17				5.00		83.4	70-130			
Carbon Disulfide	5.65				5.00		113	70-130			
Carbon Tetrachloride	4.64				5.00		92.8	70-130			
Chlorobenzene	4.67				5.00		93.5	70-130			
Chloroethane	5.03				5.00		101	70-130			
Chloroform	5.03				5.00		101	70-130			
Chloromethane	5.06				5.00		101	70-130			
Cyclohexane	4.58				5.00		91.5	70-130			
Dibromochloromethane	4.88				5.00		97.6	70-130			
1,2-Dibromoethane (EDB)	4.58				5.00		91.7	70-130			
1,2-Dichlorobenzene	4.62				5.00		92.5	70-130			
1,3-Dichlorobenzene	5.12				5.00		102	70-130			
1,4-Dichlorobenzene	5.18				5.00		104	70-130			
Dichlorodifluoromethane (Freon 12)	5.69				5.00		114	70-130			
1,1-Dichloroethane	5.33				5.00		107	70-130			
1,2-Dichloroethane	4.86				5.00		97.3	70-130			
1,1-Dichloroethylene	5.60				5.00		112	70-130			
cis-1,2-Dichloroethylene	4.67				5.00		93.4	70-130			
trans-1,2-Dichloroethylene	5.42				5.00		108	70-130			
1,2-Dichloropropane	4.73				5.00		94.6	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B363468 - TO-15 Prep												
LCS (B363468-BS1)					Prepared & Analyzed: 01/15/24							
cis-1,3-Dichloropropene	4.72				5.00		94.5		70-130			
trans-1,3-Dichloropropene	5.03				5.00		101		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	5.23				5.00		105		70-130			
1,4-Dioxane	4.70				5.00		94.1		70-130			
Ethanol	6.36				5.00		127		70-130			
Ethyl Acetate	3.97				5.00		79.3		70-130			
Ethylbenzene	4.89				5.00		97.8		70-130			
4-Ethyltoluene	4.94				5.00		98.9		70-130			
Heptane	4.54				5.00		90.8		70-130			
Hexachlorobutadiene	4.36				4.25		103		70-130			
Hexane	4.73				5.00		94.5		70-130			
2-Hexanone (MBK)	4.92				5.00		98.4		70-130			
Isopropanol	5.04				5.00		101		70-130			
Methyl tert-Butyl Ether (MTBE)	5.43				5.00		109		70-130			
Methylene Chloride	5.03				5.00		101		70-130			
4-Methyl-2-pentanone (MIBK)	4.78				5.00		95.5		70-130			
Naphthalene	4.85				3.68		**132**	*	70-130			L-01, V-20
Propene	4.09				5.00		81.7		70-130			
Styrene	4.75				5.00		95.0		70-130			
1,1,2,2-Tetrachloroethane	5.10				5.00		102		70-130			
Tetrachloroethylene	4.58				5.00		91.6		70-130			
Tetrahydrofuran	3.31				5.00		**66.3**	*	70-130			L-03
Toluene	4.73				5.00		94.6		70-130			
1,2,4-Trichlorobenzene	4.76				3.90		122		70-130			
1,1,1-Trichloroethane	4.56				5.00		91.3		70-130			
1,1,2-Trichloroethane	5.04				5.00		101		70-130			
Trichloroethylene	4.49				5.00		89.8		70-130			
Trichlorofluoromethane (Freon 11)	5.47				5.00		109		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.43				5.00		109		70-130			
1,2,4-Trimethylbenzene	4.78				5.00		95.5		70-130			
1,3,5-Trimethylbenzene	4.88				5.00		97.5		70-130			
Vinyl Acetate	6.56				5.00		**131**	*	70-130			L-05, V-20
Vinyl Chloride	5.33				5.00		107		70-130			
m&p-Xylene	10.1				10.0		101		70-130			
o-Xylene	4.92				5.00		98.4		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.84*				*8.00*		*98.0*		*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B363468 - TO-15 Prep											
Duplicate (B363468-DUP1)			**Source: 24A1373-01**		Prepared & Analyzed: 01/15/24						
Acetone	3.1	4.0	7.3	9.5		3.0			1.70	25	
Benzene	0.36	0.10	1.2	0.32		0.38			5.41	25	
Benzyl chloride	ND	0.10	ND	0.52		ND				25	
Bromodichloromethane	ND	0.10	ND	0.67		ND				25	
Bromoform	ND	0.10	ND	1.0		ND				25	
Bromomethane	ND	0.10	ND	0.39		ND				25	
1,3-Butadiene	ND	0.10	ND	0.22		ND				25	
2-Butanone (MEK)	ND	4.0	ND	12		ND				25	
Carbon Disulfide	ND	1.0	ND	3.1		ND				25	
Carbon Tetrachloride	0.16	0.10	0.98	0.63		0.14			13.7	25	
Chlorobenzene	ND	0.10	ND	0.46		ND				25	
Chloroethane	ND	0.10	ND	0.26		ND				25	
Chloroform	0.044	0.10	0.21	0.49		0.032			**31.6**	25	R-03
Chloromethane	1.0	0.20	2.1	0.41		1.0			3.29	25	
Cyclohexane	0.048	0.10	0.17	0.34		0.046			4.26	25	
Dibromochloromethane	ND	0.10	ND	0.85		ND				25	
1,2-Dibromoethane (EDB)	ND	0.10	ND	0.77		ND				25	
1,2-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,3-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,4-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
Dichlorodifluoromethane (Freon 12)	1.2	0.10	5.7	0.49		1.2			0.347	25	
1,1-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,2-Dichloroethane	ND	0.10	ND	0.40		0.054				25	
1,1-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
cis-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
trans-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
1,2-Dichloropropane	ND	0.10	ND	0.46		ND				25	
cis-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
trans-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.042	0.10	0.29	0.70		0.046			9.09	25	
1,4-Dioxane	ND	1.0	ND	3.6		ND				25	
Ethanol	16	4.0	29	7.5		15			5.30	25	
Ethyl Acetate	0.30	1.0	1.1	3.6		0.30			1.33	25	
Ethylbenzene	0.054	0.10	0.23	0.43		0.050			7.69	25	
4-Ethyltoluene	ND	0.10	ND	0.49		ND				25	
Heptane	0.12	0.10	0.48	0.41		0.088			**29.1**	25	R-03
Hexachlorobutadiene	ND	0.10	ND	1.1		ND				25	
Hexane	ND	4.0	ND	14		ND				25	
2-Hexanone (MBK)	ND	0.10	ND	0.41		ND				25	
Isopropanol	ND	4.0	ND	9.8		ND				25	
Methyl tert-Butyl Ether (MTBE)	ND	0.10	ND	0.36		ND				25	
Methylene Chloride	0.64	1.0	2.2	3.5		0.59			7.46	25	
4-Methyl-2-pentanone (MIBK)	ND	0.10	ND	0.41		ND				25	
Naphthalene	ND	0.10	ND	0.52		ND				25	
Propene	ND	4.0	ND	6.9		ND				25	
Styrene	ND	0.10	ND	0.43		ND				25	

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B363468 - TO-15 Prep											
Duplicate (B363468-DUP1)			**Source: 24A1373-01**		Prepared & Analyzed: 01/15/24						
1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.69		ND				25	
Tetrachloroethylene	ND	0.10	ND	0.68		ND				25	
Tetrahydrofuran	ND	1.0	ND	2.9		ND				25	L-03
Toluene	0.32	0.10	1.2	0.38		0.30			3.87	25	
1,2,4-Trichlorobenzene	ND	0.10	ND	0.74		ND				25	
1,1,1-Trichloroethane	ND	0.10	ND	0.55		ND				25	
1,1,2-Trichloroethane	ND	0.10	ND	0.55		ND				25	
Trichloroethylene	ND	0.10	ND	0.54		ND				25	
Trichlorofluoromethane (Freon 11)	0.50	0.40	2.8	2.2		0.52			3.15	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.17	0.40	1.3	3.1		0.17			0.00	25	
1,2,4-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
1,3,5-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
Vinyl Acetate	0.38	2.0	1.3	7.0		ND				25	L-05, V-20
Vinyl Chloride	ND	0.10	ND	0.26		ND				25	
m&p-Xylene	0.11	0.20	0.48	0.87		0.11			1.83	25	
o-Xylene	0.048	0.10	0.21	0.43		0.048			0.00	25	
Surrogate: 4-Bromofluorobenzene (1)	*7.82*				*8.00*		*97.7*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
R-03	Duplicate RPD outside of control limits. Reduced precision is expected for values near the reporting limit.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S091464-ICV1)			Lab File ID: L23A214020.D			Analyzed: 08/02/23 23:42			
Bromochloromethane (1)	300782	2.867	314027	2.871	96	60 - 140	-0.0040	+/-0.50	
1,4-Difluorobenzene (1)	878479	3.54	895773	3.54	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	823159	5.202	837397	5.202	98	60 - 140	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S099220-CCV1)			Lab File ID: L24A015003.D			Analyzed: 01/15/24 10:02			
Bromochloromethane (1)	261026	2.865				60 - 140		+/-0.50	
1,4-Difluorobenzene (1)	766255	3.539				60 - 140		+/-0.50	
Chlorobenzene-d5 (1)	687264	5.196				60 - 140		+/-0.50	
LCS (B363468-BS1)			Lab File ID: L24A015004.D			Analyzed: 01/15/24 10:28			
Bromochloromethane (1)	266528	2.865	261026	2.865	102	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	775244	3.539	766255	3.539	101	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	701161	5.196	687264	5.196	102	60 - 140	0.0000	+/-0.50	
Blank (B363468-BLK1)			Lab File ID: L24A015007.D			Analyzed: 01/15/24 12:00			
Bromochloromethane (1)	257260	2.87	261026	2.865	99	60 - 140	0.0050	+/-0.50	
1,4-Difluorobenzene (1)	725549	3.538	766255	3.539	95	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	663292	5.194	687264	5.196	97	60 - 140	-0.0020	+/-0.50	
SP-303 Effluent (24A1373-01)			Lab File ID: L24A015023.D			Analyzed: 01/15/24 20:52			
Bromochloromethane (1)	238214	2.864	261026	2.865	91	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	704919	3.538	766255	3.539	92	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	643173	5.195	687264	5.196	94	60 - 140	-0.0010	+/-0.50	
Duplicate (B363468-DUP1)			Lab File ID: L24A015024.D			Analyzed: 01/15/24 21:21			
Bromochloromethane (1)	237562	2.864	261026	2.865	91	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	699906	3.538	766255	3.539	91	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	630960	5.194	687264	5.196	92	60 - 140	-0.0020	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S099220-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	5.16	1.122255	1.158144		3.2	30
Benzene	A	5.00	5.02	0.7254293	0.7286285		0.4	30
Benzyl chloride	A	5.00	5.39	0.65192	0.7023234		7.7	30
Bromodichloromethane	A	5.00	5.23	0.5567047	0.581918		4.5	30
Bromoform	A	5.00	5.09	0.4926101	0.5018322		1.9	30
Bromomethane	A	5.00	5.88	0.6308676	0.7412411		17.5	30
1,3-Butadiene	A	5.00	5.43	0.551149	0.5986101		8.6	30
2-Butanone (MEK)	A	5.00	4.33	1.381604	1.197343		-13.3	30
Carbon Disulfide	A	5.00	5.76	2.063757	2.379079		15.3	30
Carbon Tetrachloride	A	5.00	5.13	0.5110368	0.5245439		2.6	30
Chlorobenzene	A	5.00	5.01	0.7219812	0.7232505		0.2	30
Chloroethane	A	5.00	5.13	0.411751	0.4226705		2.7	30
Chloroform	A	5.00	5.38	1.439332	1.548707		7.6	30
Chloromethane	A	5.00	5.37	0.6101459	0.6548436		7.3	30
Cyclohexane	A	5.00	4.70	0.3030286	0.2848472		-6.0	30
Dibromochloromethane	A	5.00	5.16	0.5644122	0.5820436		3.1	30
1,2-Dibromoethane (EDB)	A	5.00	4.96	0.5076449	0.5036993		-0.8	30
1,2-Dichlorobenzene	A	5.00	4.80	0.6234765	0.5990758		-3.9	30
1,3-Dichlorobenzene	A	5.00	5.44	0.6267236	0.6815105		8.7	30
1,4-Dichlorobenzene	A	5.00	5.53	0.5801365	0.6414094		10.6	30
Dichlorodifluoromethane (Freon 12)	A	5.00	6.09	1.768079	2.15409		21.8	30
1,1-Dichloroethane	A	5.00	5.61	1.392824	1.562486		12.2	30
1,2-Dichloroethane	A	5.00	5.37	0.9772927	1.049336		7.4	30
1,1-Dichloroethylene	A	5.00	5.97	1.127187	1.346637		19.5	30
cis-1,2-Dichloroethylene	A	5.00	5.07	0.908952	0.9210669		1.3	30
trans-1,2-Dichloroethylene	A	5.00	5.64	1.128232	1.273449		12.9	30
1,2-Dichloropropane	A	5.00	5.10	0.2601948	0.2656828		2.1	30
cis-1,3-Dichloropropene	A	5.00	5.57	0.3962271	0.4413027		11.4	30
trans-1,3-Dichloropropene	A	5.00	4.99	0.3522842	0.3513901		-0.3	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	6.17	1.784687	2.201399		23.3	30
1,4-Dioxane	A	5.00	4.51	0.1742852	0.1573429		-9.7	30
Ethanol	A	5.00	5.21	0.1732414	0.1806287		4.3	30
Ethyl Acetate	A	5.00	4.11	0.2390169	0.1964249		-17.8	30
Ethylbenzene	A	5.00	5.30	1.176902	1.248561		6.1	30
4-Ethyltoluene	A	5.00	5.22	1.247069	1.302896		4.5	30
Heptane	A	5.00	4.74	0.2286847	0.2168218		-5.2	30
Hexachlorobutadiene	A	5.00	4.50	0.4755616	0.4278344		-10.0	30
Hexane	A	5.00	4.66	0.7442178	0.694104		-6.7	30

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CONTINUING CALIBRATION CHECK

EPA TO-15

S099220-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Hexanone (MBK)	A	5.00	5.36	0.5993899	0.6427178		7.2	30
Isopropanol	A	5.00	5.48	1.180699	1.293952		9.6	30
Methyl tert-Butyl Ether (MTBE)	A	5.00	5.65	2.130891	2.408753		13.0	30
Methylene Chloride	A	5.00	5.30	0.8716214	0.9232919		5.9	30
4-Methyl-2-pentanone (MIBK)	A	5.00	5.09	0.2414371	0.2456018		1.7	30
Naphthalene	A	5.00	7.51	0.954618	1.434474		50.3	30 *
Propene	A	5.00	4.52	0.4075236	0.3682821		-9.6	30
Styrene	A	5.00	5.25	0.6680173	0.7012339		5.0	30
1,1,2,2-Tetrachloroethane	A	5.00	5.43	0.6838293	0.743046		8.7	30
Tetrachloroethylene	A	5.00	4.86	0.4174566	0.4060041		-2.7	30
Tetrahydrofuran	A	5.00	3.89	0.9111963	0.7091217		-22.2	30
Toluene	A	5.00	4.99	0.9385805	0.9373516		-0.1	30
1,2,4-Trichlorobenzene	A	5.00	5.39	0.3693275	0.3978908		7.7	30
1,1,1-Trichloroethane	A	5.00	5.11	0.5075792	0.5191379		2.3	30
1,1,2-Trichloroethane	A	5.00	5.56	0.309655	0.3440797		11.1	30
Trichloroethylene	A	5.00	4.83	0.3356598	0.324078		-3.5	30
Trichlorofluoromethane (Freon 11)	A	5.00	5.89	1.816743	2.138607		17.7	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	5.99	1.436582	1.719976		19.7	30
1,2,4-Trimethylbenzene	A	5.00	5.32	1.021302	1.085897		6.3	30
1,3,5-Trimethylbenzene	A	5.00	5.33	1.055296	1.124366		6.5	30
Vinyl Acetate	A	5.00	7.02	1.463541	2.05612		40.5	30 *
Vinyl Chloride	A	5.00	5.81	0.7105757	0.8254503		16.2	30
m&p-Xylene	A	10.0	10.8	0.9711506	1.050142		8.1	30
o-Xylene	A	5.00	5.32	0.9550518	1.016248		6.4	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	NY,ME,NH
Benzene	FL,NJ,NY,ME,NH,VA
Benzyl chloride	FL,NJ,NY,ME,NH,VA
Bromodichloromethane	NJ,NY,ME,NH,VA
Bromoform	NJ,NY,ME,NH,VA
Bromomethane	FL,NJ,NY,ME,NH
1,3-Butadiene	NJ,NY,ME,NH,VA
2-Butanone (MEK)	FL,NJ,NY,ME,NH,VA
Carbon Disulfide	NJ,NY,ME,NH,VA
Carbon Tetrachloride	FL,NJ,NY,ME,NH,VA
Chlorobenzene	FL,NJ,NY,ME,NH,VA
Chloroethane	FL,NJ,NY,ME,NH,VA
Chloroform	FL,NJ,NY,ME,NH,VA
Chloromethane	FL,NJ,NY,ME,NH,VA
Cyclohexane	NJ,NY,ME,NH,VA
Dibromochloromethane	NY,ME,NH
1,2-Dibromoethane (EDB)	NJ,NY,ME,NH
1,2-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	NJ,NY,ME,NH
1,4-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH
1,1-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	NJ,NY,ME,NH,VA
1,2-Dichloropropane	FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,ME,NH,VA
1,4-Dioxane	NJ,NY,ME,NH,VA
Ethylbenzene	FL,NJ,NY,ME,NH,VA
Heptane	NJ,NY,ME,NH,VA
Hexachlorobutadiene	NJ,NY,ME,NH,VA
Hexane	FL,NJ,NY,ME,NH,VA
Isopropanol	NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	FL,NJ,NY,ME,NH,VA
Methylene Chloride	FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Styrene	FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	FL,NJ,NY,ME,NH,VA
Tetrachloroethylene	FL,NJ,NY,ME,NH,VA
Toluene	FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Trichloroethylene	FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	NJ,NY,ME,NH
1,3,5-Trimethylbenzene	NJ,NY,ME,NH
Vinyl Acetate	FL,NJ,NY,ME,NH,VA
Vinyl Chloride	FL,NJ,NY,ME,NH,VA
m&p-Xylene	FL,NJ,NY,ME,NH,VA
o-Xylene	FL,NJ,NY,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
FL	Florida Department of Health	E871027 NELAP	06/30/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024

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24A1373

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DOC #378 REV3_11232021

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: TetraTech
Address:
Phone:
Project Name: Lockheed Martin
Project Location: 525 French Rd, Utica
Project Number:
Project Manager: Glenn Netuschil
Pace Quote Name/Number:
Invoice Recipient:
Sampled By: Steve McCarthy

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Risk Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

SI-TO-15

" Hg

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	m³/min L/min	Code	Liters m³					
01	SP-303 Effluent	1/12/24	11:40					X		-10.3	2325	7022

Please fill out completely, sign, date and retain the yellow copy for your records

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information please refer to Con-Test's Air Media Agreement

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

	Date/Time:
Relinquished by: (signature) Steve M. Carthy	1/12/24 13:30
Received by: (signature)	1/12/24 13:30
Relinquished by: (signature)	1/12/24 1700
Received by: (signature)	1/13/24 1308
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
RI
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ Other

Pace Analytical®
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Tetratech

Project Lockheed Martin

MCP/RCP Required

Deliverable Package Requirement

Location 525 French Rd, Utica

PWSID# (When Applicable)

Arrival Method Courier

Received By / Date / Time EGR 1/13/24 1308

Back-Sheet By / Date / Time KMC 1/15/24 0830

Temperature Method # ☐

Temp ≤ 6° C Actual Temperature

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☐	☒
Received in Cooler	☐	☒
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Individually Certified Cans	☐	☒
Trip Blanks	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☒

Project ☒ IDs ☒ Collection Date/Time ☒

Container	#	Size	Regulator	Duration	Accessories			
Summa Cans	1	1L	1	6hr	Nut/Ferrule		IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/ TO-11					Tedlar			

Can #'s														
1	2325	5		10		15		Regs #'s		5		10		15	
2		6		11		16		1	7022	6		11		16	
3		7		12		17		2		7		12		17	
4		8		13		18		3		8		13		18	
Unused Media		9		14		19		4		9		14		19	
1		4		9		14		Pufs/TO-17's		5		10		15	
2		5		10		15		1		6		11		16	
3		6		11		16		2		7		12		17	
4		7		12		17		3		8		13		18	
		8		13		18		4		9		14		19	

Qualtrax ID: 127034

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April 29, 2024

Glenn Netuschil
Tetra Tech - Utica, NY
525 French Road
Utica, NY 13502

Project Location: 525 French Rd, Utica, NY
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 24D3074

Enclosed are results of analyses for samples as received by the laboratory on April 25, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa L. Ferrentino
Project Manager

Table of Contents

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Tetra Tech - Utica, NY
525 French Road
Utica, NY 13502
ATTN: Glenn Netuschil

REPORT DATE: 4/29/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24D3074

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 525 French Rd, Utica, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SP-303 Effluent	24D3074-01	Air		-	
				EPA TO-15	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-01

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

1,4-Dioxane
B372851-BS1

Naphthalene
B372851-BS1

L-05

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Ethanol
24D3074-01[SP-303 Effluent], B372851-BS1, B372851-DUP1

V-36

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene
B372851-BS1, S103809-CCV1

1,4-Dioxane
B372851-BS1, S103809-CCV1

Naphthalene
B372851-BS1, S103809-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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ANALYTICAL RESULTS

Project Location: 525 French Rd, Utica, NY
Date Received: 4/25/2024
Field Sample #: SP-303 Effluent
Sample ID: 24D3074-01
Sample Matrix: Air
Sampled: 4/24/2024 13:34

Sample Description/Location:
Sub Description/Location:
Canister ID: 2128
Canister Size: 1 liter
Flow Controller ID: 5033
Sample Type: Grab

Work Order: 24D3074
Initial Vacuum(in Hg): -26
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -11.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	24	5.3		57	13	2.67	4/26/24 15:35	CMR
Benzene	ND	0.13		ND	0.43	2.67	4/26/24 15:35	CMR
Benzyl chloride	ND	0.27		ND	1.4	2.67	4/26/24 15:35	CMR
Bromodichloromethane	ND	0.13		ND	0.89	2.67	4/26/24 15:35	CMR
Bromoform	ND	0.13		ND	1.4	2.67	4/26/24 15:35	CMR
Bromomethane	ND	0.13		ND	0.52	2.67	4/26/24 15:35	CMR
1,3-Butadiene	ND	0.27		ND	0.59	2.67	4/26/24 15:35	CMR
2-Butanone (MEK)	ND	5.3		ND	16	2.67	4/26/24 15:35	CMR
Carbon Disulfide	ND	1.3		ND	4.2	2.67	4/26/24 15:35	CMR
Carbon Tetrachloride	ND	0.13		ND	0.84	2.67	4/26/24 15:35	CMR
Chlorobenzene	ND	0.13		ND	0.61	2.67	4/26/24 15:35	CMR
Chloroethane	ND	0.13		ND	0.35	2.67	4/26/24 15:35	CMR
Chloroform	2.9	0.13		14	0.65	2.67	4/26/24 15:35	CMR
Chloromethane	0.31	0.27		0.65	0.55	2.67	4/26/24 15:35	CMR
Cyclohexane	0.61	0.13		2.1	0.46	2.67	4/26/24 15:35	CMR
Dibromochloromethane	ND	0.13		ND	1.1	2.67	4/26/24 15:35	CMR
1,2-Dibromoethane (EDB)	ND	0.13		ND	1.0	2.67	4/26/24 15:35	CMR
1,2-Dichlorobenzene	ND	0.13		ND	0.80	2.67	4/26/24 15:35	CMR
1,3-Dichlorobenzene	ND	0.13		ND	0.80	2.67	4/26/24 15:35	CMR
1,4-Dichlorobenzene	ND	0.13		ND	0.80	2.67	4/26/24 15:35	CMR
Dichlorodifluoromethane (Freon 12)	0.70	0.13		3.4	0.66	2.67	4/26/24 15:35	CMR
1,1-Dichloroethane	ND	0.13		ND	0.54	2.67	4/26/24 15:35	CMR
1,2-Dichloroethane	ND	0.13		ND	0.54	2.67	4/26/24 15:35	CMR
1,1-Dichloroethylene	ND	0.13		ND	0.53	2.67	4/26/24 15:35	CMR
cis-1,2-Dichloroethylene	0.28	0.13		1.1	0.53	2.67	4/26/24 15:35	CMR
trans-1,2-Dichloroethylene	0.13	0.13		0.53	0.53	2.67	4/26/24 15:35	CMR
1,2-Dichloropropane	ND	0.13		ND	0.62	2.67	4/26/24 15:35	CMR
cis-1,3-Dichloropropene	ND	0.13		ND	0.61	2.67	4/26/24 15:35	CMR
trans-1,3-Dichloropropene	ND	0.13		ND	0.61	2.67	4/26/24 15:35	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.13		ND	0.93	2.67	4/26/24 15:35	CMR
1,4-Dioxane	ND	1.3		ND	4.8	2.67	4/26/24 15:35	CMR
Ethanol	14	5.3	L-05	26	10	2.67	4/26/24 15:35	CMR
Ethyl Acetate	ND	1.3		ND	4.8	2.67	4/26/24 15:35	CMR
Ethylbenzene	ND	0.13		ND	0.58	2.67	4/26/24 15:35	CMR
4-Ethyltoluene	ND	0.13		ND	0.66	2.67	4/26/24 15:35	CMR
Heptane	1.5	0.13		6.0	0.55	2.67	4/26/24 15:35	CMR
Hexachlorobutadiene	ND	0.13		ND	1.4	2.67	4/26/24 15:35	CMR

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ANALYTICAL RESULTS

Project Location: 525 French Rd, Utica, NY
Date Received: 4/25/2024
Field Sample #: SP-303 Effluent
Sample ID: 24D3074-01
Sample Matrix: Air
Sampled: 4/24/2024 13:34

Sample Description/Location:
Sub Description/Location:
Canister ID: 2128
Canister Size: 1 liter
Flow Controller ID: 5033
Sample Type: Grab

Work Order: 24D3074
Initial Vacuum(in Hg): -26
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -11.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	5.3		ND	19	2.67	4/26/24 15:35	CMR
2-Hexanone (MBK)	ND	0.13		ND	0.55	2.67	4/26/24 15:35	CMR
Isopropanol	90	5.3		220	13	2.67	4/26/24 15:35	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.13		ND	0.48	2.67	4/26/24 15:35	CMR
Methylene Chloride	7.7	1.3		27	4.6	2.67	4/26/24 15:35	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.13		ND	0.55	2.67	4/26/24 15:35	CMR
Naphthalene	ND	0.13		ND	0.70	2.67	4/26/24 15:35	CMR
Propene	ND	5.3		ND	9.2	2.67	4/26/24 15:35	CMR
Styrene	ND	0.13		ND	0.57	2.67	4/26/24 15:35	CMR
1,1,2,2-Tetrachloroethane	ND	0.13		ND	0.92	2.67	4/26/24 15:35	CMR
Tetrachloroethylene	13	0.13		87	0.91	2.67	4/26/24 15:35	CMR
Tetrahydrofuran	ND	1.3		ND	3.9	2.67	4/26/24 15:35	CMR
Toluene	0.22	0.13		0.81	0.50	2.67	4/26/24 15:35	CMR
1,2,4-Trichlorobenzene	ND	0.13		ND	0.99	2.67	4/26/24 15:35	CMR
1,1,1-Trichloroethane	0.26	0.13		1.4	0.73	2.67	4/26/24 15:35	CMR
1,1,2-Trichloroethane	ND	0.13		ND	0.73	2.67	4/26/24 15:35	CMR
Trichloroethylene	1.3	0.13		7.2	0.72	2.67	4/26/24 15:35	CMR
Trichlorofluoromethane (Freon 11)	ND	0.53		ND	3.0	2.67	4/26/24 15:35	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.53		ND	4.1	2.67	4/26/24 15:35	CMR
1,2,4-Trimethylbenzene	ND	0.13		ND	0.66	2.67	4/26/24 15:35	CMR
1,3,5-Trimethylbenzene	ND	0.13		ND	0.66	2.67	4/26/24 15:35	CMR
Vinyl Acetate	ND	2.7		ND	9.4	2.67	4/26/24 15:35	CMR
Vinyl Chloride	ND	0.13		ND	0.34	2.67	4/26/24 15:35	CMR
m&p-Xylene	ND	0.27		ND	1.2	2.67	4/26/24 15:35	CMR
o-Xylene	ND	0.13		ND	0.58	2.67	4/26/24 15:35	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	88.8	70-130	4/26/24 15:35

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Sample Extraction Data

Prep Method:TO-15 Prep **Analytical Method:EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
24D3074-01 [SP-303 Effluent]	B372851	2	1	N/A	1000	200	150	04/26/24

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B372851 - TO-15 Prep											
Blank (B372851-BLK1)					Prepared & Analyzed: 04/26/24						
Acetone	ND	1.4									
Benzene	ND	0.034									
Benzyl chloride	ND	0.069									
Bromodichloromethane	ND	0.034									
Bromoform	ND	0.034									
Bromomethane	ND	0.034									
1,3-Butadiene	ND	0.069									
2-Butanone (MEK)	ND	1.4									
Carbon Disulfide	ND	0.34									
Carbon Tetrachloride	ND	0.034									
Chlorobenzene	ND	0.034									
Chloroethane	ND	0.034									
Chloroform	ND	0.034									
Chloromethane	ND	0.069									
Cyclohexane	ND	0.034									
Dibromochloromethane	ND	0.034									
1,2-Dibromoethane (EDB)	ND	0.034									
1,2-Dichlorobenzene	ND	0.034									
1,3-Dichlorobenzene	ND	0.034									
1,4-Dichlorobenzene	ND	0.034									
Dichlorodifluoromethane (Freon 12)	ND	0.034									
1,1-Dichloroethane	ND	0.034									
1,2-Dichloroethane	ND	0.034									
1,1-Dichloroethylene	ND	0.034									
cis-1,2-Dichloroethylene	ND	0.034									
trans-1,2-Dichloroethylene	ND	0.034									
1,2-Dichloropropane	ND	0.034									
cis-1,3-Dichloropropene	ND	0.034									
trans-1,3-Dichloropropene	ND	0.034									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.034									
1,4-Dioxane	ND	0.34									
Ethanol	ND	1.4									
Ethyl Acetate	ND	0.34									
Ethylbenzene	ND	0.034									
4-Ethyltoluene	ND	0.034									
Heptane	ND	0.034									
Hexachlorobutadiene	ND	0.034									
Hexane	ND	1.4									
2-Hexanone (MBK)	ND	0.034									
Isopropanol	ND	1.4									
Methyl tert-Butyl Ether (MTBE)	ND	0.034									
Methylene Chloride	ND	0.34									
4-Methyl-2-pentanone (MIBK)	ND	0.034									
Naphthalene	ND	0.034									
Propene	ND	1.4									
Styrene	ND	0.034									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B372851 - TO-15 Prep											
Blank (B372851-BLK1)					Prepared & Analyzed: 04/26/24						
1,1,2,2-Tetrachloroethane	ND	0.034									
Tetrachloroethylene	ND	0.034									
Tetrahydrofuran	ND	0.34									
Toluene	ND	0.034									
1,2,4-Trichlorobenzene	ND	0.034									
1,1,1-Trichloroethane	ND	0.034									
1,1,2-Trichloroethane	ND	0.034									
Trichloroethylene	ND	0.034									
Trichlorofluoromethane (Freon 11)	ND	0.14									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14									
1,2,4-Trimethylbenzene	ND	0.034									
1,3,5-Trimethylbenzene	ND	0.034									
Vinyl Acetate	ND	0.69									
Vinyl Chloride	ND	0.034									
m&p-Xylene	ND	0.069									
o-Xylene	ND	0.034									
Surrogate: 4-Bromofluorobenzene (1)	*7.16*				*8.00*		*89.5*	*70-130*			
LCS (B372851-BS1)					Prepared & Analyzed: 04/26/24						
Acetone	5.67				5.00		113	70-130			
Benzene	4.89				5.00		97.7	70-130			
Benzyl chloride	5.44				5.00		109	70-130			
Bromodichloromethane	4.88				5.00		97.6	70-130			
Bromoform	5.31				5.00		106	70-130			
Bromomethane	4.60				5.00		92.0	70-130			
1,3-Butadiene	5.76				5.00		115	70-130			
2-Butanone (MEK)	6.08				5.00		122	70-130			
Carbon Disulfide	5.00				5.00		100	70-130			
Carbon Tetrachloride	4.62				5.00		92.3	70-130			
Chlorobenzene	4.75				5.00		95.0	70-130			
Chloroethane	5.30				5.00		106	70-130			
Chloroform	3.72				5.00		74.5	70-130			
Chloromethane	5.38				5.00		108	70-130			
Cyclohexane	4.61				5.00		92.2	70-130			
Dibromochloromethane	5.11				5.00		102	70-130			
1,2-Dibromoethane (EDB)	5.12				5.00		102	70-130			
1,2-Dichlorobenzene	5.78				5.00		116	70-130			
1,3-Dichlorobenzene	6.01				5.00		120	70-130			
1,4-Dichlorobenzene	5.48				5.00		110	70-130			
Dichlorodifluoromethane (Freon 12)	4.92				5.00		98.4	70-130			
1,1-Dichloroethane	5.44				5.00		109	70-130			
1,2-Dichloroethane	4.27				5.00		85.4	70-130			
1,1-Dichloroethylene	4.79				5.00		95.7	70-130			
cis-1,2-Dichloroethylene	4.18				5.00		83.6	70-130			
trans-1,2-Dichloroethylene	5.49				5.00		110	70-130			
1,2-Dichloropropane	5.20				5.00		104	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B372851 - TO-15 Prep												
LCS (B372851-BS1)					Prepared & Analyzed: 04/26/24							
cis-1,3-Dichloropropene	4.68				5.00		93.5		70-130			
trans-1,3-Dichloropropene	5.78				5.00		116		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.60				5.00		92.0		70-130			
1,4-Dioxane	6.53				5.00		**131**	*	70-130			L-01, V-36
Ethanol	7.15				5.00		**143**	*	70-130			L-05
Ethyl Acetate	4.25				5.00		85.0		70-130			
Ethylbenzene	4.94				5.00		98.9		70-130			
4-Ethyltoluene	4.90				5.00		97.9		70-130			
Heptane	5.67				5.00		113		70-130			
Hexachlorobutadiene	5.48				5.00		110		70-130			
Hexane	4.13				5.00		82.7		70-130			
2-Hexanone (MBK)	6.32				5.00		126		70-130			
Isopropanol	5.55				5.00		111		70-130			
Methyl tert-Butyl Ether (MTBE)	4.73				5.00		94.7		70-130			
Methylene Chloride	5.13				5.00		103		70-130			
4-Methyl-2-pentanone (MIBK)	6.28				5.00		126		70-130			
Naphthalene	6.59				5.00		**132**	*	70-130			L-01, V-36
Propene	4.77				5.00		95.4		70-130			
Styrene	5.35				5.00		107		70-130			
1,1,2,2-Tetrachloroethane	5.44				5.00		109		70-130			
Tetrachloroethylene	4.77				5.00		95.4		70-130			
Tetrahydrofuran	4.80				5.00		96.0		70-130			
Toluene	5.00				5.00		100		70-130			
1,2,4-Trichlorobenzene	6.23				5.00		125		70-130			V-36
1,1,1-Trichloroethane	4.61				5.00		92.2		70-130			
1,1,2-Trichloroethane	5.07				5.00		101		70-130			
Trichloroethylene	4.76				5.00		95.1		70-130			
Trichlorofluoromethane (Freon 11)	4.54				5.00		90.9		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.44				5.00		88.7		70-130			
1,2,4-Trimethylbenzene	5.21				5.00		104		70-130			
1,3,5-Trimethylbenzene	6.14				5.00		123		70-130			
Vinyl Acetate	5.29				5.00		106		70-130			
Vinyl Chloride	5.38				5.00		108		70-130			
m&p-Xylene	10.6				10.0		106		70-130			
o-Xylene	5.47				5.00		109		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.65*				*8.00*		*95.6*		*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B372851 - TO-15 Prep											
Duplicate (B372851-DUP1)			**Source: 24D3074-01**		Prepared & Analyzed: 04/26/24						
Acetone	23	5.3	56	13		24			1.68	25	
Benzene	0.085	0.13	0.27	0.43		0.096			11.8	25	
Benzyl chloride	ND	0.27	ND	1.4		ND				25	
Bromodichloromethane	ND	0.13	ND	0.89		ND				25	
Bromoform	ND	0.13	ND	1.4		ND				25	
Bromomethane	ND	0.13	ND	0.52		ND				25	
1,3-Butadiene	ND	0.27	ND	0.59		ND				25	
2-Butanone (MEK)	ND	5.3	ND	16		ND				25	
Carbon Disulfide	ND	1.3	ND	4.2		ND				25	
Carbon Tetrachloride	ND	0.13	ND	0.84		ND				25	
Chlorobenzene	ND	0.13	ND	0.61		ND				25	
Chloroethane	ND	0.13	ND	0.35		ND				25	
Chloroform	2.8	0.13	14	0.65		2.9			3.43	25	
Chloromethane	0.33	0.27	0.67	0.55		0.31			4.18	25	
Cyclohexane	0.57	0.13	2.0	0.46		0.61			6.77	25	
Dibromochloromethane	ND	0.13	ND	1.1		ND				25	
1,2-Dibromoethane (EDB)	ND	0.13	ND	1.0		ND				25	
1,2-Dichlorobenzene	ND	0.13	ND	0.80		ND				25	
1,3-Dichlorobenzene	ND	0.13	ND	0.80		ND				25	
1,4-Dichlorobenzene	ND	0.13	ND	0.80		ND				25	
Dichlorodifluoromethane (Freon 12)	0.70	0.13	3.4	0.66		0.70			0.00	25	
1,1-Dichloroethane	ND	0.13	ND	0.54		ND				25	
1,2-Dichloroethane	ND	0.13	ND	0.54		ND				25	
1,1-Dichloroethylene	ND	0.13	ND	0.53		ND				25	
cis-1,2-Dichloroethylene	0.28	0.13	1.1	0.53		0.28			2.87	25	
trans-1,2-Dichloroethylene	0.13	0.13	0.50	0.53		0.13			6.19	25	
1,2-Dichloropropane	ND	0.13	ND	0.62		ND				25	
cis-1,3-Dichloropropene	ND	0.13	ND	0.61		ND				25	
trans-1,3-Dichloropropene	ND	0.13	ND	0.61		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.13	ND	0.93		ND				25	
1,4-Dioxane	ND	1.3	ND	4.8		ND				25	
Ethanol	12	5.3	22	10		14			16.3	25	L-05
Ethyl Acetate	ND	1.3	ND	4.8		ND				25	
Ethylbenzene	ND	0.13	ND	0.58		ND				25	
4-Ethyltoluene	ND	0.13	ND	0.66		ND				25	
Heptane	1.5	0.13	6.1	0.55		1.5			0.723	25	
Hexachlorobutadiene	ND	0.13	ND	1.4		ND				25	
Hexane	ND	5.3	ND	19		ND				25	
2-Hexanone (MBK)	ND	0.13	ND	0.55		ND				25	
Isopropanol	85	5.3	210	13		90			5.20	25	
Methyl tert-Butyl Ether (MTBE)	ND	0.13	ND	0.48		ND				25	
Methylene Chloride	7.7	1.3	27	4.6		7.7			0.209	25	
4-Methyl-2-pentanone (MIBK)	ND	0.13	ND	0.55		ND				25	
Naphthalene	ND	0.13	ND	0.70		ND				25	
Propene	ND	5.3	ND	9.2		ND				25	
Styrene	ND	0.13	ND	0.57		ND				25	

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B372851 - TO-15 Prep											
Duplicate (B372851-DUP1)			**Source: 24D3074-01**		Prepared & Analyzed: 04/26/24						
1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.92		ND				25	
Tetrachloroethylene	13	0.13	86	0.91		13			0.670	25	
Tetrahydrofuran	ND	1.3	ND	3.9		ND				25	
Toluene	0.23	0.13	0.88	0.50		0.22			7.14	25	
1,2,4-Trichlorobenzene	ND	0.13	ND	0.99		ND				25	
1,1,1-Trichloroethane	0.25	0.13	1.4	0.73		0.26			4.12	25	
1,1,2-Trichloroethane	ND	0.13	ND	0.73		ND				25	
Trichloroethylene	1.4	0.13	7.5	0.72		1.3			4.28	25	
Trichlorofluoromethane (Freon 11)	0.35	0.53	2.0	3.0		0.37			5.93	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.14	0.53	1.1	4.1		0.15			3.64	25	
1,2,4-Trimethylbenzene	0.085	0.13	0.42	0.66		0.091			6.06	25	
1,3,5-Trimethylbenzene	ND	0.13	ND	0.66		ND				25	
Vinyl Acetate	ND	2.7	ND	9.4		ND				25	
Vinyl Chloride	ND	0.13	ND	0.34		ND				25	
m&p-Xylene	0.11	0.27	0.48	1.2		0.11			0.00	25	
o-Xylene	ND	0.13	ND	0.58		ND				25	
Surrogate: 4-Bromofluorobenzene (1)	*7.18*				*8.00*		*89.8*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
V-36	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S103531-ICV1)			Lab File ID: K24A106019.D			Analyzed: 04/15/24 19:46			
Bromochloromethane (1)	87305	2.903	89107	2.903	98	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	195073	3.527	200182	3.527	97	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	177713	5.142	181661	5.142	98	60 - 140	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S103809-CCV1)			Lab File ID: K24A117003.D			Analyzed: 04/26/24 09:32			
Bromochloromethane (1)	87002	2.896				60 - 140		+/-0.50	
1,4-Difluorobenzene (1)	158909	3.528				60 - 140		+/-0.50	
Chlorobenzene-d5 (1)	139736	5.142				60 - 140		+/-0.50	
LCS (B372851-BS1)			Lab File ID: K24A117004.D			Analyzed: 04/26/24 10:00			
Bromochloromethane (1)	85488	2.896	87002	2.896	98	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	157948	3.527	158909	3.528	99	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	138506	5.142	139736	5.142	99	60 - 140	0.0000	+/-0.50	
Blank (B372851-BLK1)			Lab File ID: K24A117009.D			Analyzed: 04/26/24 12:29			
Bromochloromethane (1)	85269	2.896	87002	2.896	98	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	143668	3.527	158909	3.528	90	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	127847	5.142	139736	5.142	91	60 - 140	0.0000	+/-0.50	
SP-303 Effluent (24D3074-01)			Lab File ID: K24A117014.D			Analyzed: 04/26/24 15:35			
Bromochloromethane (1)	79209	2.896	87002	2.896	91	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	132489	3.528	158909	3.528	83	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	122336	5.142	139736	5.142	88	60 - 140	0.0000	+/-0.50	
Duplicate (B372851-DUP1)			Lab File ID: K24A117015.D			Analyzed: 04/26/24 16:06			
Bromochloromethane (1)	81218	2.896	87002	2.896	93	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	133562	3.527	158909	3.528	84	60 - 140	-0.0010	+/-0.50	
Chlorobenzene-d5 (1)	123729	5.142	139736	5.142	89	60 - 140	0.0000	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S103809-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	5.62	0.9878897	1.109602		12.3	30
Benzene	A	5.00	5.06	0.8125705	0.8222668		1.2	30
Benzyl chloride	A	5.00	5.14	0.6050113	0.7298792		2.7	30
Bromodichloromethane	A	5.00	5.10	0.6600421	0.6736937		2.1	30
Bromoform	A	5.00	5.27	0.4582029	0.4832885		5.5	30
Bromomethane	A	5.00	4.65	0.5997196	0.5573573		-7.1	30
1,3-Butadiene	A	5.00	5.87	0.6735398	0.674504		17.4	30
2-Butanone (MEK)	A	5.00	5.96	1.437234	1.713653		19.2	30
Carbon Disulfide	A	5.00	4.90	1.830102	1.792768		-2.0	30
Carbon Tetrachloride	A	5.00	4.87	0.5360304	0.5221806		-2.6	30
Chlorobenzene	A	5.00	4.77	0.8437425	0.8054732		-4.5	30
Chloroethane	A	5.00	5.30	0.3972731	0.4210662		6.0	30
Chloroform	A	5.00	3.76	1.488916	1.120544		-24.7	30
Chloromethane	A	5.00	5.59	0.7669907	0.8573044		11.8	30
Cyclohexane	A	5.00	4.65	0.3462023	0.321764		-7.1	30
Dibromochloromethane	A	5.00	5.14	0.5803333	0.5971604		2.9	30
1,2-Dibromoethane (EDB)	A	5.00	5.19	0.559033	0.5799737		3.7	30
1,2-Dichlorobenzene	A	5.00	5.41	0.5815736	0.6287628		8.1	30
1,3-Dichlorobenzene	A	5.00	5.06	0.6669087	0.6755138		1.3	30
1,4-Dichlorobenzene	A	5.00	5.84	0.5759686	0.6732467		16.9	30
Dichlorodifluoromethane (Freon 12)	A	5.00	5.02	1.759801	1.765421		0.3	30
1,1-Dichloroethane	A	5.00	5.44	1.482462	1.611568		8.7	30
1,2-Dichloroethane	A	5.00	4.32	1.048043	0.905524		-13.6	30
1,1-Dichloroethylene	A	5.00	4.74	1.292964	1.227025		-5.1	30
cis-1,2-Dichloroethylene	A	5.00	4.23	1.006326	0.8520816		-15.3	30
trans-1,2-Dichloroethylene	A	5.00	5.48	1.230032	1.348456		9.6	30
1,2-Dichloropropane	A	5.00	5.22	0.3627084	0.3786922		4.4	30
cis-1,3-Dichloropropene	A	5.00	5.12	0.4994679	0.5110346		2.3	30
trans-1,3-Dichloropropene	A	5.00	5.46	0.362027	0.3952048		9.2	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	5.01	1.741838	1.743978		0.1	30
1,4-Dioxane	A	5.00	5.34	0.1289199	0.1375781		6.7	30
Ethanol	A	5.00	6.43	0.1510718	0.1943679		28.7	30
Ethyl Acetate	A	5.00	4.19	0.2021722	0.169449		-16.2	30
Ethylbenzene	A	5.00	5.17	1.341114	1.386145		3.4	30
4-Ethyltoluene	A	5.00	4.68	1.346837	1.262083		-6.3	30
Heptane	A	5.00	5.98	0.2939088	0.3514565		19.6	30
Hexachlorobutadiene	A	5.00	4.88	0.3974328	0.3875308		-2.5	30
Hexane	A	5.00	4.20	0.7974254	0.6689869		-16.1	30

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CONTINUING CALIBRATION CHECK

EPA TO-15

S103809-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Hexanone (MBK)	A	5.00	5.88	0.6085842	0.7155436		17.6	30
Isopropanol	A	5.00	5.38	1.40291	1.510457		7.7	30
Methyl tert-Butyl Ether (MTBE)	A	5.00	4.74	1.842859	1.747675		-5.2	30
Methylene Chloride	A	5.00	5.09	0.8905306	0.9064251		1.8	30
4-Methyl-2-pentanone (MIBK)	A	5.00	5.89	0.2515395	0.2965219		17.9	30
Naphthalene	A	5.00	5.14	0.7608559	0.7912635		4.0	30
Propene	A	5.00	4.84	0.3918855	0.3792832		-3.2	30
Styrene	A	5.00	5.30	0.6931352	0.7341845		5.9	30
1,1,2,2-Tetrachloroethane	A	5.00	5.55	0.7949978	0.8820061		10.9	30
Tetrachloroethylene	A	5.00	4.88	0.4393819	0.4289346		-2.4	30
Tetrahydrofuran	A	5.00	4.25	0.5812287	0.4938369		-15.0	30
Toluene	A	5.00	5.01	1.064963	1.067728		0.3	30
1,2,4-Trichlorobenzene	A	5.00	4.88	0.3145178	0.3068186		-2.4	30
1,1,1-Trichloroethane	A	5.00	4.86	0.5920208	0.5749102		-2.9	30
1,1,2-Trichloroethane	A	5.00	5.27	0.3639298	0.3837179		5.4	30
Trichloroethylene	A	5.00	4.77	0.382826	0.3652908		-4.6	30
Trichlorofluoromethane (Freon 11)	A	5.00	4.61	1.690812	1.559762		-7.8	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	4.56	1.343977	1.226418		-8.7	30
1,2,4-Trimethylbenzene	A	5.00	5.13	1.072241	1.099674		2.6	30
1,3,5-Trimethylbenzene	A	5.00	5.99	0.9923743	1.188435		19.8	30
Vinyl Acetate	A	5.00	5.55	1.772518	1.9679		11.0	30
Vinyl Chloride	A	5.00	5.48	0.7854419	0.8608906		9.6	30
m&p-Xylene	A	10.0	10.6	1.08204	1.143803		5.7	30
o-Xylene	A	5.00	5.34	1.04291	1.114891		6.9	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	NY,ME,NH
Benzene	FL,NJ,NY,ME,NH,VA
Benzyl chloride	FL,NJ,NY,ME,NH,VA
Bromodichloromethane	NJ,NY,ME,NH,VA
Bromoform	NJ,NY,ME,NH,VA
Bromomethane	FL,NJ,NY,ME,NH
1,3-Butadiene	NJ,NY,ME,NH,VA
2-Butanone (MEK)	FL,NJ,NY,ME,NH,VA
Carbon Disulfide	NJ,NY,ME,NH,VA
Carbon Tetrachloride	FL,NJ,NY,ME,NH,VA
Chlorobenzene	FL,NJ,NY,ME,NH,VA
Chloroethane	FL,NJ,NY,ME,NH,VA
Chloroform	FL,NJ,NY,ME,NH,VA
Chloromethane	FL,NJ,NY,ME,NH,VA
Cyclohexane	NJ,NY,ME,NH,VA
Dibromochloromethane	NY,ME,NH
1,2-Dibromoethane (EDB)	NJ,NY,ME,NH
1,2-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	NJ,NY,ME,NH
1,4-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH
1,1-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	NJ,NY,ME,NH,VA
1,2-Dichloropropane	FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,ME,NH,VA
1,4-Dioxane	NJ,NY,ME,NH,VA
Ethylbenzene	FL,NJ,NY,ME,NH,VA
Heptane	NJ,NY,ME,NH,VA
Hexachlorobutadiene	NJ,NY,ME,NH,VA
Hexane	FL,NJ,NY,ME,NH,VA
Isopropanol	NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	FL,NJ,NY,ME,NH,VA
Methylene Chloride	FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Styrene	FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	FL,NJ,NY,ME,NH,VA
Tetrachloroethylene	FL,NJ,NY,ME,NH,VA
Toluene	FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Trichloroethylene	FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	NJ,NY,ME,NH
1,3,5-Trimethylbenzene	NJ,NY,ME,NH
Vinyl Acetate	FL,NJ,NY,ME,NH,VA
Vinyl Chloride	FL,NJ,NY,ME,NH,VA
m&p-Xylene	FL,NJ,NY,ME,NH,VA
o-Xylene	FL,NJ,NY,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
FL	Florida Department of Health	E871027 NELAP	06/30/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024

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24D3074

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DOC #378 REV3_11232021

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name:	Tetra Tech, Inc.
Address:	980 Awald Road Suite 302 Annapolis, MD 21403
Phone:	(410) 350-6491
Project Name:	Former Lockheed Martin Site
Project Location:	525 French Road Utica, NY
Project Number:	
Project Manager:	Glenn Netuschil email: glenn.netuschil@hrpassociates.com
Pace Quote Name/Number:	
Invoice Recipient:	Peter Rich email: Peter.Rich@tetratech.com
Sampled By:	

Requested Turnaround Time			
7-Day	☒	10-Day	☐
Due Date:			
Rush-Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐
Data Delivery			
Format:	PDF ☒	EXCEL	☐
Other:			
CLP Like Data Pkg Required:			☐
Email To:			
Fax To #:			

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	TO-15				" Hg			Please fill out completely, sign, date and retain the yellow copy for your records	
Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	☐ m³/min ☐ L/min	Code	☐ Liters ☐ m³					Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply	For summa canister and flow controller information please refer to Con-Test's Air Media Agreement
															Summa Can ID	Flow Controller ID
01	SP-303 Effluent	4/24/24 1334	4/24/24 1334					X				-26	-9	-1.4	2128	5033

Comments:
Email results to glenn.netuschil@hrpassociates.com

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Date/Time: 4/24/24 1640
Received by: (signature) Secured Storage	Date/Time: 4/24/24 1610
Relinquished by: (signature) Secured Storage	Date/Time: 4/24/24 2150
Received by: (signature)	Date/Time: 4/24/24 2150
Relinquished by: (signature)	Date/Time: 4/24/24 2150
Received by: (signature) Kevin Coan	Date/Time: 4/25/24 1050

Detection Limit Requirements		Special Requirements	
MA		☐	MA MCP Required
			MCP Certification Form Required
		☐	CT RCP Required
CT			RCP Certification Form Required
		☐	Other
Other:			

Pace Analytical®

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Tetra Tech

Project Former Lockheed Martin Site

MCP/RCP Required

Deliverable Package Requirement

Location 525 French Road, Utica, NY

PWSID# (When Applicable)

Arrival Method Courier

Received By / Date / Time KMC 4/25/24 1050

Back-Sheet By / Date / Time KMC 4/25/24 1110

Temperature ~~Method~~ # ☐

Temp ≤ 6° C Actual Temperature

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☐	☒
Received in Cooler	☐	☒
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Individually Certified Cans	☐	☒
Trip Blanks	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☐

Project ☒ IDs ☒ Collection Date/Time ☒

Container	#	Size	Regulator	Duration	Accessories			
Summa Cans	1	1L	1	Grab	Nut/Ferrule		IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/ TO-11					Tedlar			

Can #'s														
1	2128	5		10		15		Regs #'s		5		10		15	
2		6		11		16		1	5033	6		11		16	
3		7		12		17		2		7		12		17	
4		8		13		18		3		8		13		18	
Unused Media		9		14		19		4		9		14		19	
1		4		9		14		Pufs/TO-17's		5		10		15	
2		5		10		15		1		6		11		16	
3		6		11		16		2		7		12		17	
4		7		12		17		3		8		13		18	
		8		13		18		4		9		14		19	

Qualtrax ID: 127034

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July 10, 2024

Peter Rich
Tetra Tech - Anapolis, MD
980 Awald Road, Suite 302
Anapolis, MD 21403

Project Location: MD
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 24G0512

Enclosed are results of analyses for samples as received by the laboratory on July 2, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa L. Ferrentino
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Tetra Tech - Anapolis, MD
980 Awald Road, Suite 302
Anapolis, MD 21403
ATTN: Peter Rich

REPORT DATE: 7/10/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24G0512

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: MD

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SP-303 Effluent	24G0512-01	Air		-	
				EPA TO-15	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Carbon Tetrachloride

24G0512-01[SP-303 Effluent], B379625-BLK1, B379625-BS1, S107209-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: MD
Date Received: 7/2/2024
Field Sample #: SP-303 Effluent
Sample ID: 24G0512-01
Sample Matrix: Air
Sampled: 7/1/2024 09:49

Sample Description/Location:
Sub Description/Location:
Canister ID: 2828
Canister Size: 1 liter
Flow Controller ID: 5055
Sample Type: Grab

Work Order: 24G0512
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -8
Receipt Vacuum(in Hg): -9.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	16	8.0		38	19	4	7/9/24 19:19	CMR
Benzene	0.20	0.20		0.64	0.64	4	7/9/24 19:19	CMR
Benzyl chloride	ND	0.20		ND	1.0	4	7/9/24 19:19	CMR
Bromodichloromethane	ND	0.20		ND	1.3	4	7/9/24 19:19	CMR
Bromoform	ND	0.20		ND	2.1	4	7/9/24 19:19	CMR
Bromomethane	ND	0.20		ND	0.78	4	7/9/24 19:19	CMR
1,3-Butadiene	ND	0.20		ND	0.44	4	7/9/24 19:19	CMR
2-Butanone (MEK)	ND	8.0		ND	24	4	7/9/24 19:19	CMR
Carbon Disulfide	ND	2.0		ND	6.2	4	7/9/24 19:19	CMR
Carbon Tetrachloride	ND	0.20	V-05	ND	1.3	4	7/9/24 19:19	CMR
Chlorobenzene	ND	0.20		ND	0.92	4	7/9/24 19:19	CMR
Chloroethane	ND	0.20		ND	0.53	4	7/9/24 19:19	CMR
Chloroform	7.0	0.20		34	0.98	4	7/9/24 19:19	CMR
Chloromethane	ND	0.40		ND	0.83	4	7/9/24 19:19	CMR
Cyclohexane	50	0.20		170	0.69	4	7/9/24 19:19	CMR
Dibromochloromethane	ND	0.20		ND	1.7	4	7/9/24 19:19	CMR
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	7/9/24 19:19	CMR
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	7/9/24 19:19	CMR
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	7/9/24 19:19	CMR
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	7/9/24 19:19	CMR
Dichlorodifluoromethane (Freon 12)	0.51	0.20		2.5	0.99	4	7/9/24 19:19	CMR
1,1-Dichloroethane	ND	0.20		ND	0.81	4	7/9/24 19:19	CMR
1,2-Dichloroethane	ND	0.20		ND	0.81	4	7/9/24 19:19	CMR
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	7/9/24 19:19	CMR
cis-1,2-Dichloroethylene	0.23	0.20		0.90	0.79	4	7/9/24 19:19	CMR
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	7/9/24 19:19	CMR
1,2-Dichloropropane	ND	0.20		ND	0.92	4	7/9/24 19:19	CMR
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	7/9/24 19:19	CMR
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	7/9/24 19:19	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	7/9/24 19:19	CMR
1,4-Dioxane	ND	2.0		ND	7.2	4	7/9/24 19:19	CMR
Ethanol	11	8.0		20	15	4	7/9/24 19:19	CMR
Ethyl Acetate	ND	2.0		ND	7.2	4	7/9/24 19:19	CMR
Ethylbenzene	0.65	0.20		2.8	0.87	4	7/9/24 19:19	CMR
4-Ethyltoluene	0.67	0.20		3.3	0.98	4	7/9/24 19:19	CMR
Heptane	2.3	0.20		9.5	0.82	4	7/9/24 19:19	CMR
Hexachlorobutadiene	ND	0.20		ND	2.1	4	7/9/24 19:19	CMR

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ANALYTICAL RESULTS

Project Location: MD
Date Received: 7/2/2024
Field Sample #: SP-303 Effluent
Sample ID: 24G0512-01
Sample Matrix: Air
Sampled: 7/1/2024 09:49

Sample Description/Location:
Sub Description/Location:
Canister ID: 2828
Canister Size: 1 liter
Flow Controller ID: 5055
Sample Type: Grab

Work Order: 24G0512
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -8
Receipt Vacuum(in Hg): -9.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	8.0		ND	28	4	7/9/24 19:19	CMR
2-Hexanone (MBK)	ND	0.20		ND	0.82	4	7/9/24 19:19	CMR
Isopropanol	66	8.0		160	20	4	7/9/24 19:19	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	7/9/24 19:19	CMR
Methylene Chloride	7.1	2.0		25	6.9	4	7/9/24 19:19	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	7/9/24 19:19	CMR
Naphthalene	ND	0.20		ND	1.0	4	7/9/24 19:19	CMR
Propene	ND	8.0		ND	14	4	7/9/24 19:19	CMR
Styrene	ND	0.20		ND	0.85	4	7/9/24 19:19	CMR
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	7/9/24 19:19	CMR
Tetrachloroethylene	11	0.20		78	1.4	4	7/9/24 19:19	CMR
Tetrahydrofuran	ND	2.0		ND	5.9	4	7/9/24 19:19	CMR
Toluene	0.60	0.20		2.3	0.75	4	7/9/24 19:19	CMR
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	7/9/24 19:19	CMR
1,1,1-Trichloroethane	0.24	0.20		1.3	1.1	4	7/9/24 19:19	CMR
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	7/9/24 19:19	CMR
Trichloroethylene	2.0	0.20		11	1.1	4	7/9/24 19:19	CMR
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	7/9/24 19:19	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	7/9/24 19:19	CMR
1,2,4-Trimethylbenzene	0.42	0.20		2.0	0.98	4	7/9/24 19:19	CMR
1,3,5-Trimethylbenzene	6.8	0.20		33	0.98	4	7/9/24 19:19	CMR
Vinyl Acetate	ND	4.0		ND	14	4	7/9/24 19:19	CMR
Vinyl Chloride	ND	0.20		ND	0.51	4	7/9/24 19:19	CMR
m&p-Xylene	1.4	0.40		6.3	1.7	4	7/9/24 19:19	CMR
o-Xylene	7.5	0.20		32	0.87	4	7/9/24 19:19	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	111	70-130	7/9/24 19:19

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Sample Extraction Data

Prep Method:TO-15 Prep **Analytical Method:EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
24G0512-01 [SP-303 Effluent]	B379625	1.5	1	N/A	1000	400	150	07/09/24

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B379625 - TO-15 Prep											
Blank (B379625-BLK1)					Prepared & Analyzed: 07/09/24						
Acetone	ND	1.4									
Benzene	ND	0.035									
Benzyl chloride	ND	0.035									
Bromodichloromethane	ND	0.035									
Bromoform	ND	0.035									
Bromomethane	ND	0.035									
1,3-Butadiene	ND	0.035									
2-Butanone (MEK)	ND	1.4									
Carbon Disulfide	ND	0.35									
Carbon Tetrachloride	ND	0.035									V-05
Chlorobenzene	ND	0.035									
Chloroethane	ND	0.035									
Chloroform	ND	0.035									
Chloromethane	ND	0.070									
Cyclohexane	ND	0.035									
Dibromochloromethane	ND	0.035									
1,2-Dibromoethane (EDB)	ND	0.035									
1,2-Dichlorobenzene	ND	0.035									
1,3-Dichlorobenzene	ND	0.035									
1,4-Dichlorobenzene	ND	0.035									
Dichlorodifluoromethane (Freon 12)	ND	0.035									
1,1-Dichloroethane	ND	0.035									
1,2-Dichloroethane	ND	0.035									
1,1-Dichloroethylene	ND	0.035									
cis-1,2-Dichloroethylene	ND	0.035									
trans-1,2-Dichloroethylene	ND	0.035									
1,2-Dichloropropane	ND	0.035									
cis-1,3-Dichloropropene	ND	0.035									
trans-1,3-Dichloropropene	ND	0.035									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035									
1,4-Dioxane	ND	0.35									
Ethanol	ND	1.4									
Ethyl Acetate	ND	0.35									
Ethylbenzene	ND	0.035									
4-Ethyltoluene	ND	0.035									
Heptane	ND	0.035									
Hexachlorobutadiene	ND	0.035									
Hexane	ND	1.4									
2-Hexanone (MBK)	ND	0.035									
Isopropanol	ND	1.4									
Methyl tert-Butyl Ether (MTBE)	ND	0.035									
Methylene Chloride	ND	0.35									
4-Methyl-2-pentanone (MIBK)	ND	0.035									
Naphthalene	ND	0.035									
Propene	ND	1.4									
Styrene	ND	0.035									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B379625 - TO-15 Prep											
Blank (B379625-BLK1)					Prepared & Analyzed: 07/09/24						
1,1,2,2-Tetrachloroethane	ND	0.035									
Tetrachloroethylene	ND	0.035									
Tetrahydrofuran	ND	0.35									
Toluene	ND	0.035									
1,2,4-Trichlorobenzene	ND	0.035									
1,1,1-Trichloroethane	ND	0.035									
1,1,2-Trichloroethane	ND	0.035									
Trichloroethylene	ND	0.035									
Trichlorofluoromethane (Freon 11)	ND	0.14									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14									
1,2,4-Trimethylbenzene	ND	0.035									
1,3,5-Trimethylbenzene	ND	0.035									
Vinyl Acetate	ND	0.70									
Vinyl Chloride	ND	0.035									
m&p-Xylene	ND	0.070									
o-Xylene	ND	0.035									
Surrogate: 4-Bromofluorobenzene (1)	*8.48*				*8.00*		*106*	*70-130*			
LCS (B379625-BS1)					Prepared & Analyzed: 07/09/24						
Acetone	5.02				5.00		100	70-130			
Benzene	3.99				5.00		79.9	70-130			
Benzyl chloride	4.73				5.00		94.7	70-130			
Bromodichloromethane	4.13				5.00		82.6	70-130			
Bromoform	5.25				5.00		105	70-130			
Bromomethane	4.64				5.00		92.7	70-130			
1,3-Butadiene	4.65				5.00		92.9	70-130			
2-Butanone (MEK)	4.86				5.00		97.1	70-130			
Carbon Disulfide	4.45				5.00		89.0	70-130			
Carbon Tetrachloride	5.09				5.00		102	70-130			V-05
Chlorobenzene	4.47				5.00		89.4	70-130			
Chloroethane	4.49				5.00		89.9	70-130			
Chloroform	4.50				5.00		90.0	70-130			
Chloromethane	4.36				5.00		87.2	70-130			
Cyclohexane	4.27				5.00		85.4	70-130			
Dibromochloromethane	5.14				5.00		103	70-130			
1,2-Dibromoethane (EDB)	4.54				5.00		90.7	70-130			
1,2-Dichlorobenzene	5.09				5.00		102	70-130			
1,3-Dichlorobenzene	5.42				5.00		108	70-130			
1,4-Dichlorobenzene	5.23				5.00		105	70-130			
Dichlorodifluoromethane (Freon 12)	4.12				5.00		82.4	70-130			
1,1-Dichloroethane	4.24				5.00		84.7	70-130			
1,2-Dichloroethane	4.53				5.00		90.6	70-130			
1,1-Dichloroethylene	4.63				5.00		92.6	70-130			
cis-1,2-Dichloroethylene	4.36				5.00		87.1	70-130			
trans-1,2-Dichloroethylene	4.32				5.00		86.5	70-130			
1,2-Dichloropropane	3.69				5.00		73.8	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B379625 - TO-15 Prep											
LCS (B379625-BS1)					Prepared & Analyzed: 07/09/24						
cis-1,3-Dichloropropene	3.88				5.00		77.5	70-130			
trans-1,3-Dichloropropene	4.53				5.00		90.6	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.27				5.00		85.3	70-130			
1,4-Dioxane	4.66				5.00		93.3	70-130			
Ethanol	6.14				5.00		123	70-130			
Ethyl Acetate	4.43				5.00		88.6	70-130			
Ethylbenzene	4.52				5.00		90.5	70-130			
4-Ethyltoluene	5.21				5.00		104	70-130			
Heptane	4.60				5.00		92.0	70-130			
Hexachlorobutadiene	4.67				5.00		93.3	70-130			
Hexane	5.40				5.00		108	70-130			
2-Hexanone (MBK)	4.94				5.00		98.8	70-130			
Isopropanol	4.48				5.00		89.5	70-130			
Methyl tert-Butyl Ether (MTBE)	4.44				5.00		88.8	70-130			
Methylene Chloride	4.40				5.00		88.1	70-130			
4-Methyl-2-pentanone (MIBK)	5.12				5.00		102	70-130			
Naphthalene	3.95				5.00		78.9	70-130			
Propene	4.47				5.00		89.4	70-130			
Styrene	5.03				5.00		101	70-130			
1,1,2,2-Tetrachloroethane	3.85				5.00		77.0	70-130			
Tetrachloroethylene	5.06				5.00		101	70-130			
Tetrahydrofuran	4.95				5.00		99.0	70-130			
Toluene	4.53				5.00		90.6	70-130			
1,2,4-Trichlorobenzene	4.35				5.00		87.0	70-130			
1,1,1-Trichloroethane	4.56				5.00		91.1	70-130			
1,1,2-Trichloroethane	4.24				5.00		84.7	70-130			
Trichloroethylene	4.38				5.00		87.7	70-130			
Trichlorofluoromethane (Freon 11)	5.58				5.00		112	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.96				5.00		99.1	70-130			
1,2,4-Trimethylbenzene	4.96				5.00		99.2	70-130			
1,3,5-Trimethylbenzene	4.92				5.00		98.3	70-130			
Vinyl Acetate	4.34				5.00		86.8	70-130			
Vinyl Chloride	4.20				5.00		83.9	70-130			
m&p-Xylene	9.52				10.0		95.2	70-130			
o-Xylene	4.75				5.00		95.1	70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.90*				*8.00*		*111*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S100759-ICV1)			Lab File ID: G24A052016.D			Analyzed: 02/22/24 03:53			
Bromochloromethane (1)	585119	8.024	623550	8.03	94	60 - 140	-0.0060	+/-0.50	
1,4-Difluorobenzene (1)	1633998	9.792	1640491	9.798	100	60 - 140	-0.0060	+/-0.50	
Chlorobenzene-d5 (1)	1489687	14.151	1505348	14.151	99	60 - 140	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S107209-CCV1)			Lab File ID: G24A191003.D			Analyzed: 07/09/24 11:05			
Bromochloromethane (1)	459688	8.03				60 - 140		+/-0.50	
1,4-Difluorobenzene (1)	1263441	9.798				60 - 140		+/-0.50	
Chlorobenzene-d5 (1)	1182108	14.151				60 - 140		+/-0.50	
LCS (B379625-BS1)			Lab File ID: G24A191004.D			Analyzed: 07/09/24 11:46			
Bromochloromethane (1)	454311	8.03	459688	8.03	99	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1263358	9.798	1263441	9.798	100	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	1169234	14.151	1182108	14.151	99	60 - 140	0.0000	+/-0.50	
Blank (B379625-BLK1)			Lab File ID: G24A191012.D			Analyzed: 07/09/24 17:16			
Bromochloromethane (1)	422435	8.03	459688	8.03	92	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1158104	9.798	1263441	9.798	92	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	1082550	14.151	1182108	14.151	92	60 - 140	0.0000	+/-0.50	
SP-303 Effluent (24G0512-01)			Lab File ID: G24A191015.D			Analyzed: 07/09/24 19:19			
Bromochloromethane (1)	418908	8.03	459688	8.03	91	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1188562	9.792	1263441	9.798	94	60 - 140	-0.0060	+/-0.50	
Chlorobenzene-d5 (1)	1199479	14.151	1182108	14.151	101	60 - 140	0.0000	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S107209-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Acetone	A	5.00	5.43	0.9216919	1.001208		8.6	30	
Benzene	A	5.00	4.24	0.7757931	0.6585596		-15.1	30	
Benzyl chloride	A	5.00	5.25	0.8012188	0.8409844		5.0	30	
Bromodichloromethane	A	5.00	4.25	0.5972854	0.5080297		-14.9	30	
Bromoform	A	5.00	4.65	0.5431069	0.5047539		-7.1	30	
Bromomethane	A	5.00	4.76	0.6203018	0.5899132		-4.9	30	
1,3-Butadiene	A	5.00	4.79	0.4860299	0.4653382		-4.3	30	
2-Butanone (MEK)	A	5.00	5.02	1.307545	1.311383		0.3	30	
Carbon Disulfide	A	5.00	4.49	1.793354	1.609036		-10.3	30	
Carbon Tetrachloride	A	5.00	3.25	0.5009138	0.3259543		-34.9	30	*
Chlorobenzene	A	5.00	4.72	0.7877083	0.7440985		-5.5	30	
Chloroethane	A	5.00	4.46	0.3086236	0.2751571		-10.8	30	
Chloroform	A	5.00	4.70	1.440028	1.354839		-5.9	30	
Chloromethane	A	5.00	4.54	0.6785563	0.6153948		-9.3	30	
Cyclohexane	A	5.00	4.42	0.296063	0.2617563		-11.6	30	
Dibromochloromethane	A	5.00	4.95	0.5948494	0.5893269		-0.9	30	
1,2-Dibromoethane (EDB)	A	5.00	4.76	0.5490928	0.5225174		-4.8	30	
1,2-Dichlorobenzene	A	5.00	5.61	0.6148508	0.6896155		12.2	30	
1,3-Dichlorobenzene	A	5.00	5.88	0.6611977	0.7780095		17.7	30	
1,4-Dichlorobenzene	A	5.00	5.75	0.659745	0.7590995		15.1	30	
Dichlorodifluoromethane (Freon 12)	A	5.00	4.07	1.540128	1.253306		-18.6	30	
1,1-Dichloroethane	A	5.00	4.34	1.265892	1.098557		-13.2	30	
1,2-Dichloroethane	A	5.00	4.68	0.9188488	0.8592785		-6.5	30	
1,1-Dichloroethylene	A	5.00	4.68	1.038377	0.972691		-6.3	30	
cis-1,2-Dichloroethylene	A	5.00	4.57	0.8839679	0.8077479		-8.6	30	
trans-1,2-Dichloroethylene	A	5.00	4.41	0.9232199	0.8136684		-11.9	30	
1,2-Dichloropropane	A	5.00	3.80	0.3333104	0.2530144		-24.1	30	
cis-1,3-Dichloropropene	A	5.00	4.30	0.4594519	0.3951596		-14.0	30	
trans-1,3-Dichloropropene	A	5.00	4.32	0.3477882	0.3005722		-13.6	30	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	4.72	1.79331	1.691575		-5.7	30	
1,4-Dioxane	A	5.00	4.77	0.131917	0.1259633		-4.5	30	
Ethanol	A	5.00	5.59	0.1423735	0.1591688		11.8	30	
Ethyl Acetate	A	5.00	4.63	0.2078516	0.1924192		-7.4	30	
Ethylbenzene	A	5.00	4.94	1.210014	1.196153		-1.1	30	
4-Ethyltoluene	A	5.00	5.44	1.170771	1.274683		8.9	30	
Heptane	A	5.00	4.82	0.2240404	0.2159195		-3.6	30	
Hexachlorobutadiene	A	5.00	5.23	0.4331593	0.4529481		4.6	30	
Hexane	A	5.00	5.50	0.7371137	0.8100381		9.9	30	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S107209-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Hexanone (MBK)	A	5.00	5.33	0.5675055	0.6052144		6.6	30
Isopropanol	A	5.00	4.71	1.134222	1.068568		-5.8	30
Methyl tert-Butyl Ether (MTBE)	A	5.00	4.46	1.627031	1.451819		-10.8	30
Methylene Chloride	A	5.00	4.58	0.8346046	0.7643027		-8.4	30
4-Methyl-2-pentanone (MIBK)	A	5.00	5.53	0.576217	0.6372603		10.6	30
Naphthalene	A	5.00	4.91	0.8996755	0.8837149		-1.8	30
Propene	A	5.00	4.63	0.6397137	0.5921408		-7.4	30
Styrene	A	5.00	5.42	0.6589064	0.7141073		8.4	30
1,1,2,2-Tetrachloroethane	A	5.00	4.32	0.8156315	0.7050753		-13.6	30
Tetrachloroethylene	A	5.00	5.42	0.4489411	0.4865383		8.4	30
Tetrahydrofuran	A	5.00	4.49	0.2367759	0.2124885		-10.3	30
Toluene	A	5.00	4.68	0.94549	0.8850237		-6.4	30
1,2,4-Trichlorobenzene	A	5.00	5.04	0.4300223	0.4335049		0.8	30
1,1,1-Trichloroethane	A	5.00	4.89	0.5145077	0.5036468		-2.1	30
1,1,2-Trichloroethane	A	5.00	4.50	0.3592603	0.3233207		-10.0	30
Trichloroethylene	A	5.00	4.69	0.3396411	0.3183395		-6.3	30
Trichlorofluoromethane (Freon 11)	A	5.00	5.68	1.463792	1.66191		13.5	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	5.13	1.317023	1.351699		2.6	30
1,2,4-Trimethylbenzene	A	5.00	5.48	0.9566545	1.049233		9.7	30
1,3,5-Trimethylbenzene	A	5.00	5.39	0.9998111	1.077676		7.8	30
Vinyl Acetate	A	5.00	4.89	1.753198	1.715877		-2.1	30
Vinyl Chloride	A	5.00	4.40	0.6934505	0.6098049		-12.1	30
m&p-Xylene	A	10.0	10.0	0.9256934	0.9266524		0.1	30
o-Xylene	A	5.00	4.98	0.9487578	0.9444173		-0.5	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	NY,ME,NH
Benzene	FL,NJ,NY,ME,NH,VA
Benzyl chloride	FL,NJ,NY,ME,NH,VA
Bromodichloromethane	NJ,NY,ME,NH,VA
Bromoform	NJ,NY,ME,NH,VA
Bromomethane	FL,NJ,NY,ME,NH
1,3-Butadiene	NJ,NY,ME,NH,VA
2-Butanone (MEK)	FL,NJ,NY,ME,NH,VA
Carbon Disulfide	NJ,NY,ME,NH,VA
Carbon Tetrachloride	FL,NJ,NY,ME,NH,VA
Chlorobenzene	FL,NJ,NY,ME,NH,VA
Chloroethane	FL,NJ,NY,ME,NH,VA
Chloroform	FL,NJ,NY,ME,NH,VA
Chloromethane	FL,NJ,NY,ME,NH,VA
Cyclohexane	NJ,NY,ME,NH,VA
Dibromochloromethane	NY,ME,NH
1,2-Dibromoethane (EDB)	NJ,NY,ME,NH
1,2-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	NJ,NY,ME,NH
1,4-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH
1,1-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	NJ,NY,ME,NH,VA
1,2-Dichloropropane	FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,ME,NH,VA
1,4-Dioxane	NJ,NY,ME,NH,VA
Ethylbenzene	FL,NJ,NY,ME,NH,VA
Heptane	NJ,NY,ME,NH,VA
Hexachlorobutadiene	NJ,NY,ME,NH,VA
Hexane	FL,NJ,NY,ME,NH,VA
Isopropanol	NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	FL,NJ,NY,ME,NH,VA
Methylene Chloride	FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Styrene	FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	FL,NJ,NY,ME,NH,VA
Tetrachloroethylene	FL,NJ,NY,ME,NH,VA
Toluene	FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Trichloroethylene	FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	NJ,NY,ME,NH
1,3,5-Trimethylbenzene	NJ,NY,ME,NH
Vinyl Acetate	FL,NJ,NY,ME,NH,VA
Vinyl Chloride	FL,NJ,NY,ME,NH,VA
m&p-Xylene	FL,NJ,NY,ME,NH,VA
o-Xylene	FL,NJ,NY,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NJ	New Jersey DEP	MA007 NELAP	06/30/2025
FL	Florida Department of Health	E871027 NELAP	06/30/2025
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024

24G0512

Pace® Location Requested (City/State): East Long Meadow, MA

Air CHAIN-OF-CUSTODY Analytical Request Document
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR code for instructions

Company Name: Tetra Tech Inc	Contact/Report To: Glenn Netuschil
Street Address: 980 Awald Rd, Suite 302 Annapolis, MD 21403	Phone #:
City, State Zip: Annapolis, MD 21403	E-Mail: glenn.netuschil@hrpassociates.com
Customer Project #:	Cc E-Mail:
Project Name: Former Lockheed Martin Site	Invoice to: Peter Rich
Site Collection Info/Facility ID (as applicable):	Invoice E-Mail: Peter.Rich@tetratech.com
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [✓] ET	Purchase Order # (if applicable):
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other PDF	Quote #:
Regulatory Program (CAA, RCRA, etc.) as applicable:	State origin of sample(s): NY
Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2Day [ ] 3 Day Other ____	Permit # as applicable:
Date Results Requested: 7-Day	Units for Reporting: ug/m³ PPBV mg/m³ PPMV

Field Information

Analyses Requested

Lab Use Only: Proj. Manager; AcctNum / Client ID:; Table #:; Profile / Template:; Prelog / Bottle Ord. ID:

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15				Sample Comment
SP-303 Effluent	O	2828	5655	7/1/24	944	7/1/24	949	-29	-8			1L	X				-9.8

Additional Instructions from Pace®: email results to glenn.netuschil@hrpassociates.com

Collected By:
Printed Name:
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Noah Gatto HRP Associates	7/1/24 255		7/1/24 1455	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: In- Person Courier FedEx UPS Other
			7/2/24 0800	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
	7/2/24 1050		7/2/24 1050	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: ____ of: ____

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

ENV-FRM-CORQ-0020_v02_110123 ©

Table of Contents

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Tetra Tech Inc

Project Former Lockheed Martin Site

MCP/RCP Required –

Deliverable Package Requirement –

Location NY

PWSID# (When Applicable) –

Arrival Method Courier

Received By / Date / Time KMC 7-2-24 1050

Back-Sheet By / Date / Time TDH 7-2-24 1410

Temperature Method – #

Temp ≤ 6° C Actual Temperature –

Rush Samples: Yes / (No) Notify

Short Hold: Yes (No) Notify

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☐	☒
Received in Cooler	☐	☒
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Individually Certified Cans	☐	☒
Trip Blanks	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☐ Sampler Name ☐

Project ☒ IDs ☐ Collection Date/Time ☐

Container	#	Size	Regulator	Duration	Accessories			
Summa Cans	1	1L	1	Grab	Nut/Ferrule		IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/ TO-11					Tedlar			

Can #'s															Regs #'s													
1	2828	5		10		15			1	5055	5		10		15	
2		6		11		16			2		6		11		16	
3		7		12		17			3		7		12		17	
4		8		13		18			4		8		13		18	
		9		14		19					9		14		19	
Unused Media		4		9		14			**Pufs/TO-17's**		5		10		15	
1		5		10		15			1		6		11		16	
2		6		11		16			2		7		12		17	
3		7		12		17			3		8		13		18	
4		8		13		18			4		9		14		19	

ANALYTICAL REPORT

Lab Number:	L2458723
Client:	HRP Associates, Inc. 1 Fairchild Square Suite 110 Clifton Park, NY 12065
ATTN:	Kim Baines
Phone:	(518) 877-7101
Project Name:	FORMER LOCKHEED MARTIN SITE
Project Number:	HRP-TET3002.EE
Report Date:	12/30/24

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

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

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2458723-01	SP-303 EFFLUENT	SOIL_VAPOR	Not Specified	10/08/24 10:55	10/09/24

Project Name:	FORMER LOCKHEED MARTIN SITE	**Lab Number:**	L2458723
Project Number:	HRP-TET3002.EE	**Report Date:**	12/30/24

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 Pace 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 and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet 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, Pace'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 Pace Project Manager and made arrangements for Pace 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:	FORMER LOCKHEED MARTIN SITE	**Lab Number:**	L2458723
Project Number:	HRP-TET3002.EE	**Report Date:**	12/30/24

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on October 4, 2024. The canister certification data is provided as an addendum.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column

L2458723-01D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

L2458723-01D was re-analyzed due to possible carryover for Acetone and 2 butanone during the original analysis. The results of the re-analysis are also reported for these two compounds.

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:  Jennifer Jerome

Title: Technical Director/Representative Date: 12/30/24

AIR

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

SAMPLE RESULTS

Lab ID: L2458723-01 D
Client ID: SP-303 EFFLUENT
Sample Location:

Date Collected: 10/08/24 10:55
Date Received: 10/09/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/15/24 22:04
Analyst: BJB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.06	0.346	0.131	5.24	1.71	0.648		1.73
Chloromethane	0.284	0.346	0.100	0.586	0.715	0.206	J	1.73
Freon-114	ND	0.346	0.087	ND	2.42	0.610		1.73
Vinyl chloride	ND	0.346	0.101	ND	0.884	0.258		1.73
1,3-Butadiene	ND	0.346	0.107	ND	0.765	0.237		1.73
Bromomethane	ND	0.346	0.095	ND	1.34	0.367		1.73
Chloroethane	ND	0.346	0.112	ND	0.913	0.296		1.73
Ethanol	9.00	8.65	3.01	17.0	16.3	5.67		1.73
Vinyl bromide	ND	0.346	0.125	ND	1.51	0.547		1.73
Trichlorofluoromethane	0.265	0.346	0.136	1.49	1.94	0.764	J	1.73
Isopropanol	86.1	0.865	0.470	212	2.13	1.16		1.73
1,1-Dichloroethene	ND	0.346	0.098	ND	1.37	0.390		1.73
Tertiary butyl Alcohol	ND	0.865	0.228	ND	2.62	0.691		1.73
Methylene chloride	56.6	0.865	0.216	197	3.01	0.750		1.73
3-Chloropropene	ND	0.346	0.149	ND	1.08	0.466		1.73
Carbon disulfide	ND	0.346	0.080	ND	1.08	0.250		1.73
Freon-113	0.213	0.346	0.088	1.63	2.65	0.671	J	1.73
trans-1,2-Dichloroethene	ND	0.346	0.131	ND	1.37	0.519		1.73
1,1-Dichloroethane	ND	0.346	0.098	ND	1.40	0.398		1.73
Methyl tert butyl ether	ND	0.346	0.078	ND	1.25	0.280		1.73
cis-1,2-Dichloroethene	0.285	0.346	0.103	1.13	1.37	0.408	J	1.73
Ethyl Acetate	ND	0.865	0.514	ND	3.12	1.85		1.73
Chloroform	4.02	0.346	0.096	19.6	1.69	0.466		1.73

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

SAMPLE RESULTS

Lab ID: L2458723-01 D
Client ID: SP-303 EFFLUENT
Sample Location:

Date Collected: 10/08/24 10:55
Date Received: 10/09/24
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								
Tetrahydrofuran	ND	0.865	0.202	ND	2.55	0.596		1.73
1,2-Dichloroethane	ND	0.346	0.136	ND	1.40	0.550		1.73
n-Hexane	ND	0.346	0.128	ND	1.22	0.451		1.73
1,1,1-Trichloroethane	0.223	0.346	0.106	1.22	1.89	0.578	J	1.73
Benzene	ND	0.346	0.111	ND	1.11	0.355		1.73
Carbon tetrachloride	ND	0.346	0.119	ND	2.18	0.749		1.73
Cyclohexane	0.348	0.346	0.126	1.20	1.19	0.434		1.73
1,2-Dichloropropane	ND	0.346	0.109	ND	1.60	0.504		1.73
Bromodichloromethane	ND	0.346	0.119	ND	2.32	0.797		1.73
1,4-Dioxane	ND	0.346	0.093	ND	1.25	0.336		1.73
Trichloroethene	1.85	0.346	0.095	9.94	1.86	0.509		1.73
2,2,4-Trimethylpentane	ND	0.346	0.120	ND	1.62	0.560		1.73
Heptane	0.792	0.346	0.143	3.25	1.42	0.586		1.73
cis-1,3-Dichloropropene	ND	0.346	0.117	ND	1.57	0.531		1.73
4-Methyl-2-pentanone	ND	0.865	0.329	ND	3.54	1.35		1.73
trans-1,3-Dichloropropene	ND	0.346	0.135	ND	1.57	0.613		1.73
1,1,2-Trichloroethane	ND	0.346	0.101	ND	1.89	0.551		1.73
Toluene	0.294	0.346	0.150	1.11	1.30	0.565	J	1.73
2-Hexanone	ND	0.346	0.158	ND	1.42	0.648		1.73
Dibromochloromethane	ND	0.346	0.098	ND	2.95	0.834		1.73
1,2-Dibromoethane	ND	0.346	0.094	ND	2.66	0.723		1.73
Tetrachloroethene	10.5	0.346	0.108	71.2	2.35	0.732		1.73
Chlorobenzene	ND	0.346	0.089	ND	1.59	0.411		1.73
Ethylbenzene	ND	0.346	0.100	ND	1.50	0.432		1.73
p/m-Xylene	ND	0.692	0.216	ND	3.01	0.938		1.73
Bromoform	ND	0.346	0.103	ND	3.58	1.06		1.73

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

SAMPLE RESULTS

Lab ID: L2458723-01 D
Client ID: SP-303 EFFLUENT
Sample Location:

Date Collected: 10/08/24 10:55
Date Received: 10/09/24
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								
Styrene	0.121	0.346	0.103	0.515	1.47	0.439	J	1.73
1,1,2,2-Tetrachloroethane	ND	0.346	0.090	ND	2.38	0.618		1.73
o-Xylene	0.109	0.346	0.107	0.473	1.50	0.465	J	1.73
4-Ethyltoluene	ND	0.346	0.096	ND	1.70	0.471		1.73
1,3,5-Trimethylbenzene	ND	0.346	0.104	ND	1.70	0.511		1.73
1,2,4-Trimethylbenzene	0.190	0.346	0.100	0.934	1.70	0.491	J	1.73
Benzyl chloride	ND	0.346	0.162	ND	1.79	0.839		1.73
1,3-Dichlorobenzene	ND	0.346	0.134	ND	2.08	0.806		1.73
1,4-Dichlorobenzene	ND	0.346	0.143	ND	2.08	0.860		1.73
1,2-Dichlorobenzene	ND	0.346	0.107	ND	2.08	0.643		1.73
1,2,4-Trichlorobenzene	ND	0.346	0.173	ND	2.57	1.28		1.73
Naphthalene	ND	0.346	0.135	ND	1.81	0.708		1.73
Hexachlorobutadiene	ND	0.346	0.105	ND	3.69	1.12		1.73

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	82		60-140

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

SAMPLE RESULTS

Lab ID: L2458723-01 D
Client ID: SP-303 EFFLUENT
Sample Location:

Date Collected: 10/08/24 10:55
Date Received: 10/09/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/16/24 14:42
Analyst: JMB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Acetone	7.91	1.73	0.891	18.8	4.11	2.12		1.73
2-Butanone	0.438	0.865	0.171	1.29	2.55	0.504	J	1.73

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	99		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	104		60-140

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/15/24 13:39

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 Batch: WG1984552-4								
Dichlorodifluoromethane	ND	0.200	0.076	ND	0.989	0.374		1
Chloromethane	ND	0.200	0.058	ND	0.413	0.119		1
Freon-114	ND	0.200	0.050	ND	1.40	0.352		1
Vinyl chloride	ND	0.200	0.058	ND	0.511	0.149		1
1,3-Butadiene	ND	0.200	0.062	ND	0.442	0.137		1
Bromomethane	ND	0.200	0.055	ND	0.777	0.212		1
Chloroethane	ND	0.200	0.065	ND	0.528	0.171		1
Ethanol	ND	5.00	1.74	ND	9.42	3.28		1
Vinyl bromide	ND	0.200	0.072	ND	0.874	0.316		1
Acetone	ND	1.00	0.515	ND	2.38	1.22		1
Trichlorofluoromethane	ND	0.200	0.079	ND	1.12	0.442		1
Isopropanol	ND	0.500	0.272	ND	1.23	0.669		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.225		1
Tertiary butyl Alcohol	ND	0.500	0.132	ND	1.52	0.400		1
Methylene chloride	ND	0.500	0.125	ND	1.74	0.434		1
3-Chloropropene	ND	0.200	0.086	ND	0.626	0.269		1
Carbon disulfide	ND	0.200	0.047	ND	0.623	0.145		1
Freon-113	ND	0.200	0.051	ND	1.53	0.388		1
trans-1,2-Dichloroethene	ND	0.200	0.076	ND	0.793	0.299		1
1,1-Dichloroethane	ND	0.200	0.057	ND	0.809	0.230		1
Methyl tert butyl ether	ND	0.200	0.045	ND	0.721	0.162		1
2-Butanone	ND	0.500	0.099	ND	1.47	0.292		1
cis-1,2-Dichloroethene	ND	0.200	0.060	ND	0.793	0.236		1
Ethyl Acetate	ND	0.500	0.297	ND	1.80	1.07		1
Chloroform	ND	0.200	0.055	ND	0.977	0.270		1

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/15/24 13:39

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 Batch: WG1984552-4								
Tetrahydrofuran	ND	0.500	0.117	ND	1.47	0.345		1
1,2-Dichloroethane	ND	0.200	0.079	ND	0.809	0.319		1
n-Hexane	ND	0.200	0.074	ND	0.705	0.262		1
1,1,1-Trichloroethane	ND	0.200	0.061	ND	1.09	0.335		1
Benzene	ND	0.200	0.064	ND	0.639	0.205		1
Carbon tetrachloride	ND	0.200	0.069	ND	1.26	0.432		1
Cyclohexane	ND	0.200	0.073	ND	0.688	0.251		1
1,2-Dichloropropane	ND	0.200	0.063	ND	0.924	0.292		1
Bromodichloromethane	ND	0.200	0.069	ND	1.34	0.462		1
1,4-Dioxane	ND	0.200	0.054	ND	0.721	0.194		1
Trichloroethene	ND	0.200	0.055	ND	1.07	0.295		1
2,2,4-Trimethylpentane	ND	0.200	0.069	ND	0.934	0.323		1
Heptane	ND	0.200	0.083	ND	0.820	0.339		1
cis-1,3-Dichloropropene	ND	0.200	0.067	ND	0.908	0.306		1
4-Methyl-2-pentanone	ND	0.500	0.190	ND	2.05	0.779		1
trans-1,3-Dichloropropene	ND	0.200	0.078	ND	0.908	0.355		1
1,1,2-Trichloroethane	ND	0.200	0.058	ND	1.09	0.318		1
Toluene	ND	0.200	0.087	ND	0.754	0.327		1
2-Hexanone	ND	0.200	0.091	ND	0.820	0.374		1
Dibromochloromethane	ND	0.200	0.057	ND	1.70	0.482		1
1,2-Dibromoethane	ND	0.200	0.054	ND	1.54	0.418		1
Tetrachloroethene	ND	0.200	0.063	ND	1.36	0.425		1
Chlorobenzene	ND	0.200	0.052	ND	0.921	0.238		1
Ethylbenzene	ND	0.200	0.058	ND	0.869	0.250		1
p/m-Xylene	ND	0.400	0.125	ND	1.74	0.543		1

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/15/24 13:39

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 Batch: WG1984552-4								
Bromoform	ND	0.200	0.060	ND	2.07	0.616		1
Styrene	ND	0.200	0.060	ND	0.852	0.254		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.052	ND	1.37	0.357		1
o-Xylene	ND	0.200	0.062	ND	0.869	0.270		1
4-Ethyltoluene	ND	0.200	0.055	ND	0.983	0.272		1
1,3,5-Trimethylbenzene	ND	0.200	0.060	ND	0.983	0.295		1
1,2,4-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.284		1
Benzyl chloride	ND	0.200	0.094	ND	1.04	0.486		1
1,3-Dichlorobenzene	ND	0.200	0.078	ND	1.20	0.467		1
1,4-Dichlorobenzene	ND	0.200	0.083	ND	1.20	0.497		1
1,2-Dichlorobenzene	ND	0.200	0.062	ND	1.20	0.372		1
1,2,4-Trichlorobenzene	ND	0.200	0.100	ND	1.48	0.742		1
Naphthalene	ND	0.200	0.078	ND	1.05	0.409		1
Hexachlorobutadiene	ND	0.200	0.061	ND	2.13	0.647		1

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/16/24 13:42

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 Batch: WG1985127-4								
Dichlorodifluoromethane	ND	0.200	0.076	ND	0.989	0.374		1
Chloromethane	ND	0.200	0.058	ND	0.413	0.119		1
Freon-114	ND	0.200	0.050	ND	1.40	0.352		1
Vinyl chloride	ND	0.200	0.058	ND	0.511	0.149		1
1,3-Butadiene	ND	0.200	0.062	ND	0.442	0.137		1
Bromomethane	ND	0.200	0.055	ND	0.777	0.212		1
Chloroethane	ND	0.200	0.065	ND	0.528	0.171		1
Ethanol	ND	5.00	1.74	ND	9.42	3.28		1
Vinyl bromide	ND	0.200	0.072	ND	0.874	0.316		1
Acetone	ND	1.00	0.515	ND	2.38	1.22		1
Trichlorofluoromethane	ND	0.200	0.079	ND	1.12	0.442		1
Isopropanol	ND	0.500	0.272	ND	1.23	0.669		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.225		1
Tertiary butyl Alcohol	ND	0.500	0.132	ND	1.52	0.400		1
Methylene chloride	ND	0.500	0.125	ND	1.74	0.434		1
3-Chloropropene	ND	0.200	0.086	ND	0.626	0.269		1
Carbon disulfide	ND	0.200	0.047	ND	0.623	0.145		1
Freon-113	ND	0.200	0.051	ND	1.53	0.388		1
trans-1,2-Dichloroethene	ND	0.200	0.076	ND	0.793	0.299		1
1,1-Dichloroethane	ND	0.200	0.057	ND	0.809	0.230		1
Methyl tert butyl ether	ND	0.200	0.045	ND	0.721	0.162		1
2-Butanone	ND	0.500	0.099	ND	1.47	0.292		1
cis-1,2-Dichloroethene	ND	0.200	0.060	ND	0.793	0.236		1
Ethyl Acetate	ND	0.500	0.297	ND	1.80	1.07		1
Chloroform	ND	0.200	0.055	ND	0.977	0.270		1

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/16/24 13:42

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 Batch: WG1985127-4								
Tetrahydrofuran	ND	0.500	0.117	ND	1.47	0.345		1
1,2-Dichloroethane	ND	0.200	0.079	ND	0.809	0.319		1
n-Hexane	ND	0.200	0.074	ND	0.705	0.262		1
1,1,1-Trichloroethane	ND	0.200	0.061	ND	1.09	0.335		1
Benzene	ND	0.200	0.064	ND	0.639	0.205		1
Carbon tetrachloride	ND	0.200	0.069	ND	1.26	0.432		1
Cyclohexane	ND	0.200	0.073	ND	0.688	0.251		1
1,2-Dichloropropane	ND	0.200	0.063	ND	0.924	0.292		1
Bromodichloromethane	ND	0.200	0.069	ND	1.34	0.462		1
1,4-Dioxane	ND	0.200	0.054	ND	0.721	0.194		1
Trichloroethene	ND	0.200	0.055	ND	1.07	0.295		1
2,2,4-Trimethylpentane	ND	0.200	0.069	ND	0.934	0.323		1
Heptane	ND	0.200	0.083	ND	0.820	0.339		1
cis-1,3-Dichloropropene	ND	0.200	0.067	ND	0.908	0.306		1
4-Methyl-2-pentanone	ND	0.500	0.190	ND	2.05	0.779		1
trans-1,3-Dichloropropene	ND	0.200	0.078	ND	0.908	0.355		1
1,1,2-Trichloroethane	ND	0.200	0.058	ND	1.09	0.318		1
Toluene	ND	0.200	0.087	ND	0.754	0.327		1
2-Hexanone	ND	0.200	0.091	ND	0.820	0.374		1
Dibromochloromethane	ND	0.200	0.057	ND	1.70	0.482		1
1,2-Dibromoethane	ND	0.200	0.054	ND	1.54	0.418		1
Tetrachloroethene	ND	0.200	0.063	ND	1.36	0.425		1
Chlorobenzene	ND	0.200	0.052	ND	0.921	0.238		1
Ethylbenzene	ND	0.200	0.058	ND	0.869	0.250		1
p/m-Xylene	ND	0.400	0.125	ND	1.74	0.543		1

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE
Lab Number: L2458723
Report Date: 12/30/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/16/24 13:42

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 Batch: WG1985127-4								
Bromoform	ND	0.200	0.060	ND	2.07	0.616		1
Styrene	ND	0.200	0.060	ND	0.852	0.254		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.052	ND	1.37	0.357		1
o-Xylene	ND	0.200	0.062	ND	0.869	0.270		1
4-Ethyltoluene	ND	0.200	0.055	ND	0.983	0.272		1
1,3,5-Trimethylbenzene	ND	0.200	0.060	ND	0.983	0.295		1
1,2,4-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.284		1
Benzyl chloride	ND	0.200	0.094	ND	1.04	0.486		1
1,3-Dichlorobenzene	ND	0.200	0.078	ND	1.20	0.467		1
1,4-Dichlorobenzene	ND	0.200	0.083	ND	1.20	0.497		1
1,2-Dichlorobenzene	ND	0.200	0.062	ND	1.20	0.372		1
1,2,4-Trichlorobenzene	ND	0.200	0.100	ND	1.48	0.742		1
Naphthalene	ND	0.200	0.078	ND	1.05	0.409		1
Hexachlorobutadiene	ND	0.200	0.061	ND	2.13	0.647		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1984552-3								
Dichlorodifluoromethane	82		-		70-130	-		
Chloromethane	90		-		70-130	-		
Freon-114	101		-		70-130	-		
Vinyl chloride	91		-		70-130	-		
1,3-Butadiene	97		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	96		-		70-130	-		
Ethanol	105		-		40-160	-		
Vinyl bromide	95		-		70-130	-		
Acetone	102		-		40-160	-		
Trichlorofluoromethane	91		-		70-130	-		
Isopropanol	72		-		40-160	-		
1,1-Dichloroethene	96		-		70-130	-		
Tertiary butyl Alcohol	94		-		70-130	-		
Methylene chloride	94		-		70-130	-		
3-Chloropropene	104		-		70-130	-		
Carbon disulfide	90		-		70-130	-		
Freon-113	93		-		70-130	-		
trans-1,2-Dichloroethene	93		-		70-130	-		
1,1-Dichloroethane	92		-		70-130	-		
Methyl tert butyl ether	94		-		70-130	-		
2-Butanone	97		-		70-130	-		
cis-1,2-Dichloroethene	95		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1984552-3								
Ethyl Acetate	101		-		70-130	-		
Chloroform	88		-		70-130	-		
Tetrahydrofuran	98		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	99		-		70-130	-		
1,1,1-Trichloroethane	88		-		70-130	-		
Benzene	86		-		70-130	-		
Carbon tetrachloride	93		-		70-130	-		
Cyclohexane	98		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	100		-		70-130	-		
Trichloroethene	90		-		70-130	-		
2,2,4-Trimethylpentane	99		-		70-130	-		
Heptane	98		-		70-130	-		
cis-1,3-Dichloropropene	98		-		70-130	-		
4-Methyl-2-pentanone	102		-		70-130	-		
trans-1,3-Dichloropropene	101		-		70-130	-		
1,1,2-Trichloroethane	90		-		70-130	-		
Toluene	87		-		70-130	-		
2-Hexanone	100		-		70-130	-		
Dibromochloromethane	97		-		70-130	-		
1,2-Dibromoethane	88		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1984552-3								
Tetrachloroethene	83		-		70-130	-		
Chlorobenzene	85		-		70-130	-		
Ethylbenzene	89		-		70-130	-		
p/m-Xylene	88		-		70-130	-		
Bromoform	98		-		70-130	-		
Styrene	91		-		70-130	-		
1,1,2,2-Tetrachloroethane	87		-		70-130	-		
o-Xylene	91		-		70-130	-		
4-Ethyltoluene	88		-		70-130	-		
1,3,5-Trimethylbenzene	88		-		70-130	-		
1,2,4-Trimethylbenzene	91		-		70-130	-		
Benzyl chloride	89		-		70-130	-		
1,3-Dichlorobenzene	87		-		70-130	-		
1,4-Dichlorobenzene	87		-		70-130	-		
1,2-Dichlorobenzene	95		-		70-130	-		
1,2,4-Trichlorobenzene	90		-		70-130	-		
Naphthalene	86		-		70-130	-		
Hexachlorobutadiene	88		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1985127-3								
Dichlorodifluoromethane	75		-		70-130	-		
Chloromethane	83		-		70-130	-		
Freon-114	100		-		70-130	-		
Vinyl chloride	82		-		70-130	-		
1,3-Butadiene	94		-		70-130	-		
Bromomethane	86		-		70-130	-		
Chloroethane	75		-		70-130	-		
Ethanol	78		-		40-160	-		
Vinyl bromide	70		-		70-130	-		
Acetone	79		-		40-160	-		
Trichlorofluoromethane	74		-		70-130	-		
Isopropanol	70		-		40-160	-		
1,1-Dichloroethene	87		-		70-130	-		
Tertiary butyl Alcohol	91		-		70-130	-		
Methylene chloride	105		-		70-130	-		
3-Chloropropene	80		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
Freon-113	92		-		70-130	-		
trans-1,2-Dichloroethene	86		-		70-130	-		
1,1-Dichloroethane	89		-		70-130	-		
Methyl tert butyl ether	91		-		70-130	-		
2-Butanone	75		-		70-130	-		
cis-1,2-Dichloroethene	89		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1985127-3								
Ethyl Acetate	97		-		70-130	-		
Chloroform	95		-		70-130	-		
Tetrahydrofuran	76		-		70-130	-		
1,2-Dichloroethane	78		-		70-130	-		
n-Hexane	100		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
Benzene	106		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	103		-		70-130	-		
1,2-Dichloropropane	99		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	100		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	102		-		70-130	-		
Heptane	90		-		70-130	-		
cis-1,3-Dichloropropene	112		-		70-130	-		
4-Methyl-2-pentanone	89		-		70-130	-		
trans-1,3-Dichloropropene	113		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	96		-		70-130	-		
2-Hexanone	89		-		70-130	-		
Dibromochloromethane	109		-		70-130	-		
1,2-Dibromoethane	107		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1985127-3								
Tetrachloroethene	100		-		70-130	-		
Chlorobenzene	102		-		70-130	-		
Ethylbenzene	95		-		70-130	-		
p/m-Xylene	95		-		70-130	-		
Bromoform	106		-		70-130	-		
Styrene	101		-		70-130	-		
1,1,2,2-Tetrachloroethane	108		-		70-130	-		
o-Xylene	94		-		70-130	-		
4-Ethyltoluene	96		-		70-130	-		
1,3,5-Trimethylbenzene	104		-		70-130	-		
1,2,4-Trimethylbenzene	95		-		70-130	-		
Benzyl chloride	102		-		70-130	-		
1,3-Dichlorobenzene	104		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
1,2-Dichlorobenzene	102		-		70-130	-		
1,2,4-Trichlorobenzene	96		-		70-130	-		
Naphthalene	92		-		70-130	-		
Hexachlorobutadiene	85		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1985127-5 QC Sample: L2458723-01 Client ID: SP-303 EFFLUENT						
Acetone	7.91	8.00	ppbV	1		25
2-Butanone	0.438J	0.403J	ppbV	NC		25

Project Name: FORMER LOCKHEED MARTIN SITE

Project Number: HRP-TET3002.EE

Lab Number: L2458723

Report Date: 12/30/24

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	Flow Controler Leak Chk	Flow Out mL/min	Flow In	% RPD
L2458723-01	SP-303 EFFLUENT	3733	2.7L Can	10/04/24	486247	L2455838-07	Pass	-29.5	-11.1	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/27/24 22:15
Analyst: JFI

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	0.046	ND	0.707	0.164		1
Propylene	ND	0.500	0.135	ND	0.861	0.232		1
Propane	ND	0.500	0.152	ND	0.902	0.274		1
Dichlorodifluoromethane	ND	0.200	0.076	ND	0.989	0.374		1
Chloromethane	ND	0.200	0.058	ND	0.413	0.119		1
Freon-114	ND	0.200	0.050	ND	1.40	0.352		1
Methanol	ND	5.00	3.03	ND	6.55	3.97		1
Vinyl chloride	ND	0.200	0.058	ND	0.511	0.149		1
1,3-Butadiene	ND	0.200	0.062	ND	0.442	0.137		1
Butane	ND	0.200	0.080	ND	0.475	0.190		1
Bromomethane	ND	0.200	0.055	ND	0.777	0.212		1
Chloroethane	ND	0.200	0.065	ND	0.528	0.171		1
Ethanol	ND	5.00	1.74	ND	9.42	3.28		1
Dichlorofluoromethane	ND	0.200	0.112	ND	0.842	0.471		1
Vinyl bromide	ND	0.200	0.072	ND	0.874	0.316		1
Acrolein	ND	0.500	0.149	ND	1.15	0.342		1
Acetone	ND	1.00	0.515	ND	2.38	1.22		1
Acetonitrile	ND	0.200	0.101	ND	0.336	0.170		1
Trichlorofluoromethane	ND	0.200	0.079	ND	1.12	0.442		1
Isopropanol	ND	0.500	0.272	ND	1.23	0.669		1
Acrylonitrile	ND	0.500	0.089	ND	1.09	0.194		1
Pentane	ND	0.200	0.113	ND	0.590	0.333		1
Ethyl ether	ND	0.200	0.085	ND	0.606	0.259		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.225		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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	0.132	ND	1.52	0.400		1
Methylene chloride	ND	0.500	0.125	ND	1.74	0.434		1
3-Chloropropene	ND	0.200	0.086	ND	0.626	0.269		1
Carbon disulfide	ND	0.200	0.047	ND	0.623	0.145		1
Freon-113	ND	0.200	0.051	ND	1.53	0.388		1
trans-1,2-Dichloroethene	ND	0.200	0.076	ND	0.793	0.299		1
1,1-Dichloroethane	ND	0.200	0.057	ND	0.809	0.230		1
Methyl tert butyl ether	ND	0.200	0.045	ND	0.721	0.162		1
Vinyl acetate	ND	1.00	0.323	ND	3.52	1.14		1
2-Butanone	ND	0.500	0.099	ND	1.47	0.292		1
Xylenes, total	ND	0.600	0.062	ND	0.869	0.270		1
cis-1,2-Dichloroethene	ND	0.200	0.060	ND	0.793	0.236		1
Ethyl Acetate	ND	0.500	0.297	ND	1.80	1.07		1
Chloroform	ND	0.200	0.055	ND	0.977	0.270		1
Tetrahydrofuran	ND	0.500	0.117	ND	1.47	0.345		1
2,2-Dichloropropane	ND	0.200	0.043	ND	0.924	0.198		1
1,2-Dichloroethane	ND	0.200	0.079	ND	0.809	0.319		1
n-Hexane	ND	0.200	0.074	ND	0.705	0.262		1
Diisopropyl ether	ND	0.200	0.063	ND	0.836	0.264		1
tert-Butyl Ethyl Ether	ND	0.200	0.073	ND	0.836	0.306		1
1,2-Dichloroethene (total)	ND	1.00	0.060	ND	1.00	0.236		1
1,1,1-Trichloroethane	ND	0.200	0.061	ND	1.09	0.335		1
1,1-Dichloropropene	ND	0.200	0.059	ND	0.908	0.269		1
Benzene	ND	0.200	0.064	ND	0.639	0.205		1
Carbon tetrachloride	ND	0.200	0.069	ND	1.26	0.432		1
Cyclohexane	ND	0.200	0.073	ND	0.688	0.251		1
tert-Amyl Methyl Ether	ND	0.200	0.067	ND	0.836	0.281		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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	0.060	ND	1.42	0.425		1
1,2-Dichloropropane	ND	0.200	0.063	ND	0.924	0.292		1
Bromodichloromethane	ND	0.200	0.069	ND	1.34	0.462		1
1,4-Dioxane	ND	0.200	0.054	ND	0.721	0.194		1
Trichloroethene	ND	0.200	0.055	ND	1.07	0.295		1
2,2,4-Trimethylpentane	ND	0.200	0.069	ND	0.934	0.323		1
Methyl Methacrylate	ND	0.500	0.226	ND	2.05	0.925		1
Heptane	ND	0.200	0.083	ND	0.820	0.339		1
cis-1,3-Dichloropropene	ND	0.200	0.067	ND	0.908	0.306		1
4-Methyl-2-pentanone	ND	0.500	0.190	ND	2.05	0.779		1
trans-1,3-Dichloropropene	ND	0.200	0.078	ND	0.908	0.355		1
1,1,2-Trichloroethane	ND	0.200	0.058	ND	1.09	0.318		1
Toluene	ND	0.200	0.087	ND	0.754	0.327		1
1,3-Dichloropropane	ND	0.200	0.054	ND	0.924	0.248		1
2-Hexanone	ND	0.200	0.091	ND	0.820	0.374		1
Dibromochloromethane	ND	0.200	0.057	ND	1.70	0.482		1
1,2-Dibromoethane	ND	0.200	0.054	ND	1.54	0.418		1
Butyl acetate	ND	0.500	0.208	ND	2.38	0.989		1
Octane	ND	0.200	0.068	ND	0.934	0.316		1
Tetrachloroethene	ND	0.200	0.063	ND	1.36	0.425		1
1,1,1,2-Tetrachloroethane	ND	0.200	0.051	ND	1.37	0.349		1
Chlorobenzene	ND	0.200	0.052	ND	0.921	0.238		1
Ethylbenzene	ND	0.200	0.058	ND	0.869	0.250		1
p/m-Xylene	ND	0.400	0.125	ND	1.74	0.543		1
Bromoform	ND	0.200	0.060	ND	2.07	0.616		1
Styrene	ND	0.200	0.060	ND	0.852	0.254		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.052	ND	1.37	0.357		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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	0.062	ND	0.869	0.270		1
1,2,3-Trichloropropane	ND	0.200	0.058	ND	1.21	0.347		1
Nonane	ND	0.200	0.074	ND	1.05	0.387		1
Isopropylbenzene	ND	0.200	0.062	ND	0.983	0.305		1
Bromobenzene	ND	0.200	0.058	ND	0.793	0.230		1
2-Chlorotoluene	ND	0.200	0.076	ND	1.04	0.394		1
n-Propylbenzene	ND	0.200	0.063	ND	0.983	0.311		1
4-Chlorotoluene	ND	0.200	0.077	ND	1.04	0.396		1
4-Ethyltoluene	ND	0.200	0.055	ND	0.983	0.272		1
1,3,5-Trimethylbenzene	ND	0.200	0.060	ND	0.983	0.295		1
tert-Butylbenzene	ND	0.200	0.055	ND	1.10	0.302		1
1,2,4-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.284		1
Decane	ND	0.200	0.070	ND	1.16	0.406		1
Benzyl chloride	ND	0.200	0.094	ND	1.04	0.486		1
1,3-Dichlorobenzene	ND	0.200	0.078	ND	1.20	0.467		1
1,4-Dichlorobenzene	ND	0.200	0.083	ND	1.20	0.497		1
sec-Butylbenzene	ND	0.200	0.055	ND	1.10	0.300		1
p-Isopropyltoluene	ND	0.200	0.057	ND	1.10	0.311		1
1,2-Dichlorobenzene	ND	0.200	0.062	ND	1.20	0.372		1
n-Butylbenzene	ND	0.200	0.054	ND	1.10	0.294		1
1,2-Dibromo-3-chloropropane	ND	0.200	0.062	ND	1.93	0.603		1
Undecane	ND	0.200	0.071	ND	1.28	0.453		1
Dodecane	ND	0.200	0.089	ND	1.39	0.621		1
1,2,4-Trichlorobenzene	ND	0.200	0.100	ND	1.48	0.742		1
Naphthalene	ND	0.200	0.078	ND	1.05	0.409		1
1,2,3-Trichlorobenzene	ND	0.200	0.074	ND	1.48	0.548		1
Hexachlorobutadiene	ND	0.200	0.061	ND	2.13	0.647		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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	87		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	86		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/27/24 22:15
Analyst: JFI

	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	0.050	ND	0.989	0.247		1
Chloromethane	ND	0.200	0.076	ND	0.413	0.156		1
Freon-114	ND	0.050	0.006	ND	0.349	0.045		1
Vinyl chloride	ND	0.020	0.009	ND	0.051	0.023		1
1,3-Butadiene	ND	0.020	0.011	ND	0.044	0.024		1
Bromomethane	ND	0.020	0.009	ND	0.078	0.037		1
Chloroethane	ND	0.100	0.040	ND	0.264	0.104		1
Acrolein	ND	0.050	0.039	ND	0.115	0.089		1
Acetone	ND	1.00	0.539	ND	2.38	1.28		1
Trichlorofluoromethane	ND	0.050	0.009	ND	0.281	0.052		1
Acrylonitrile	ND	0.500	0.162	ND	1.09	0.352		1
1,1-Dichloroethene	ND	0.020	0.008	ND	0.079	0.031		1
Methylene chloride	ND	0.500	0.110	ND	1.74	0.382		1
Freon-113	ND	0.050	0.008	ND	0.383	0.064		1
trans-1,2-Dichloroethene	ND	0.020	0.009	ND	0.079	0.036		1
1,1-Dichloroethane	ND	0.020	0.009	ND	0.081	0.035		1
Methyl tert butyl ether	ND	0.200	0.026	ND	0.721	0.094		1
2-Butanone	ND	0.500	0.132	ND	1.47	0.389		1
cis-1,2-Dichloroethene	ND	0.020	0.010	ND	0.079	0.040		1
Chloroform	ND	0.020	0.007	ND	0.098	0.035		1
1,2-Dichloroethane	ND	0.020	0.008	ND	0.081	0.034		1
1,1,1-Trichloroethane	ND	0.020	0.006	ND	0.109	0.032		1
Benzene	ND	0.100	0.030	ND	0.319	0.095		1
Carbon tetrachloride	ND	0.020	0.011	ND	0.126	0.069		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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								
1,2-Dichloropropane	ND	0.020	0.008	ND	0.092	0.038		1
Bromodichloromethane	ND	0.020	0.007	ND	0.134	0.050		1
1,4-Dioxane	ND	0.100	0.034	ND	0.360	0.124		1
Trichloroethene	ND	0.020	0.006	ND	0.107	0.032		1
cis-1,3-Dichloropropene	ND	0.020	0.012	ND	0.091	0.054		1
4-Methyl-2-pentanone	ND	0.500	0.191	ND	2.05	0.783		1
trans-1,3-Dichloropropene	ND	0.020	0.012	ND	0.091	0.052		1
1,1,2-Trichloroethane	ND	0.020	0.010	ND	0.109	0.053		1
Toluene	ND	0.100	0.017	ND	0.377	0.063		1
Dibromochloromethane	ND	0.020	0.008	ND	0.170	0.068		1
1,2-Dibromoethane	ND	0.020	0.009	ND	0.154	0.070		1
Tetrachloroethene	ND	0.020	0.007	ND	0.136	0.050		1
1,1,1,2-Tetrachloroethane	ND	0.020	0.010	ND	0.137	0.069		1
Chlorobenzene	ND	0.100	0.026	ND	0.461	0.119		1
Ethylbenzene	ND	0.020	0.009	ND	0.087	0.037		1
p/m-Xylene	ND	0.040	0.018	ND	0.174	0.078		1
Bromoform	ND	0.020	0.011	ND	0.207	0.115		1
Styrene	ND	0.020	0.008	ND	0.085	0.034		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.046		1
o-Xylene	ND	0.020	0.009	ND	0.087	0.038		1
Isopropylbenzene	ND	0.200	0.030	ND	0.983	0.147		1
4-Ethyltoluene	ND	0.020	0.010	ND	0.098	0.049		1
1,3,5-Trimethybenzene	ND	0.020	0.010	ND	0.098	0.047		1
1,2,4-Trimethylbenzene	ND	0.020	0.008	ND	0.098	0.037		1
Benzyl chloride	ND	0.100	0.033	ND	0.518	0.172		1
1,3-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.046		1
1,4-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.045		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2455838
Report Date: 12/30/24

Air Canister Certification Results

Lab ID: L2455838-07
Client ID: CAN 475 SHELF 74
Sample Location:

Date Collected: 09/27/24 10:00
Date Received: 09/27/24
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								
sec-Butylbenzene	ND	0.200	0.027	ND	1.10	0.146		1
p-Isopropyltoluene	ND	0.200	0.037	ND	1.10	0.201		1
1,2-Dichlorobenzene	ND	0.020	0.006	ND	0.120	0.037		1
n-Butylbenzene	ND	0.200	0.032	ND	1.10	0.175		1
1,2,4-Trichlorobenzene	ND	0.050	0.015	ND	0.371	0.108		1
Naphthalene	ND	0.050	0.021	ND	0.262	0.110		1
1,2,3-Trichlorobenzene	ND	0.050	0.022	ND	0.371	0.166		1
Hexachlorobutadiene	ND	0.050	0.011	ND	0.533	0.117		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	109		60-140
chlorobenzene-d5	101		60-140

Project Name: FORMER LOCKHEED MARTIN SITE
Project Number: HRP-TET3002.EE

Lab Number: L2458723
Report Date: 12/30/24

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(*)
L2458723-01A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER LOCKHEED MARTIN SITE	**Lab Number:**	L2458723
Project Number:	HRP-TET3002.EE	**Report Date:**	12/30/24

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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER LOCKHEED MARTIN SITE	**Lab Number:**	L2458723
Project Number:	HRP-TET3002.EE	**Report Date:**	12/30/24

Footnotes

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

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. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER LOCKHEED MARTIN SITE	**Lab Number:**	L2458723
Project Number:	HRP-TET3002.EE	**Report Date:**	12/30/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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

Pace Analytical Services 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 Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services 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 Pace Analytical Services.

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 – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
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.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
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.
Nonpotable Water: EPA RSK-175 Dissolved Gases

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

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 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).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

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, EPA 537.1.

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 Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab: 10-10-24

ALPHA Job #: L2458723

Client Information

Client: TetraTech Inc
Address: 980 Awald Rd. Suite 302 Annapolis MD 21403
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former Lockheed Martin Site
Project Location:
Project #: HRP - TET 3002.EE
Project Manager: Glenn Netuschil
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)
Date Due: 7-day 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)
glenn.netuschil@hrpassociates.com

Billing Information

☐ Same as Client info PO #:
invoice to Peter Rich
Peter.Rich@tetratech.com

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

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	ANALYSIS TO-15 LL	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
58723 -01	SP-303 Effluent	10/8/24		10:55	-29.5	-9	SV	LW	2.7L	5733		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:
Glenn Netuschil - HRP	10/9/24 4:45	PACE	10/9/24 1645
PACE	10/9/24 1650		10/10 0330
	10/10/24 0500am	Ed Mendoza AAL	10/10/24 0700

Ed Mendoza AAL 10/10/24 0700

2000 42-01-01

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