



# 2023-2024 VAPOR INTRUSION MITIGATION STATUS REPORT

Pacific Foods Systems, Inc.  
North Building  
5185 Fourth Avenue South  
Seattle, Washington

5900 1st Avenue South  
Seattle, Washington

Agreed Order No. DE10402

June 2, 2025

Prepared for

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## 2023-2024 Vapor Intrusion Mitigation Status Report Pacific Foods System, Inc and 5900 1st Avenue South Seattle, Washington

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## LIST OF ABBREVIATIONS AND ACRONYMS

µg/m <sup>3</sup>	micrograms per cubic meter
Agreed Order	Agreed Order No. DE 5348
Capital	Capital Industries, Inc.
cDCE	Cis-1,2-dichloroethene
CEF	cancer exceedance factors
Ecology	Washington State Department of Ecology
Farallon	Farallon Consulting, LLC
HVOC	halogenated volatile organic compound
IOW	inches of water
Landau	Landau Associates, Inc.
MTCA	Model Toxics Control Act
NCEF	non-cancer exceedance factor
PCE	tetrachloroethene
PFE	pressure field extension
PFS-N	Pacific Food Systems, Inc. North Building
PSC	Philip Services Corporation
PSCAA	Puget Sound Clean Air Agency
Site	Capital property
SSDS	sub-slab depressurization system
TCE	trichloroethene
VI	vapor intrusion
VIAMM	Vapor Intrusion Assessment, Monitoring, and Mitigation
VIIMM	Vapor Intrusion, Inspection, Monitoring, and Maintenance

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## 1.0 INTRODUCTION

Landau Associates, Inc. (Landau) has prepared this 2023-2024 Vapor Intrusion Mitigation Status Report on behalf of Capital Industries, Inc. (Capital) to provide an update on vapor intrusion (VI) mitigation measures managed by Capital within the West of 4th site. A sub-slab depressurization system (SSDS) historically operated at the 5900 1st Avenue South (formerly known as Natus Medical building or Olympic Medical building) and at the Pacific Food Systems, Inc. North building (PFS-N) located at 5815 4th Avenue South, both in Seattle, Washington. The SSDS at 5900 1st Avenue South was shut down in July 2022, and the SSDS at PFS-N was shut down in August 2023; both following confirmation sampling demonstrating that vapor intrusion was not causing unacceptable chemical concentrations in indoor air. The general site location is shown on Figure 1 and the locations of PFS-N and 5900 1st Avenue South relative to the Capital property are shown on Figure 2.

Operation of VI mitigation systems at PFS-N and 5900 1st Avenue South were operated in accordance with Exhibits B and D of Agreed Order No. DE 5348 entered into by the Washington State Department of Ecology (Ecology) and Capital on January 24, 2008 (Agreed Order) and with the *Revised Vapor Intrusion Assessment, Monitoring, and Mitigation (VIAMM) Plan*, prepared by Farallon Consulting, L.L.C. (Farallon; Farallon 2015a) under Agreed Order No. DE 10402 entered into by Ecology and the West of 4th Group. Based on the results of additional investigation and sampling at both locations, continued SSDS operations are no longer warranted.

### 1.1 Purpose of Report

The purpose of this report is to provide a summary of the final summary report for the VI mitigation measures. A full analysis of the shutdown is detailed in the Draft PFS-N Vapor Intrusion Mitigation System Shut Down Investigation Results Technical Memorandum prepared by Landau dated February 28, 2025 (PFS-N Shut Down Tech Memo; Landau 2025a)

### 1.2 Report Organization

The report is organized as follows:

- **Section 1: Introduction:** Presents the report's purpose
- **Section 2: Site Description and Background:** Provides a description of the Capital Area of Investigation and a summary of the PFS-N and 5900 1st Avenue South buildings' backgrounds
- **Section 3: Inspection, Monitoring, and Maintenance Procedures:** Discusses the procedures used for the SSDSs' inspection, monitoring, and maintenance
- **Section 4: Inspection, Monitoring, and Maintenance Results:** Discusses the results, inspection and monitoring of the PFS-N SSDS, and maintenance activities conducted at the PFS-N building
- **Section 5: Conclusions:** Presents Landau's conclusions regarding the SSDSs' monitoring and performance air sampling results for the PFS-N and 5900 1st Avenue South buildings
- **Section 6: Planned Work:** Discusses whether any future work is planned or suggested.
- **Section 7: Use of this Report**



- **Section 8: References:** Provides a list of the documents used in preparation of this report.

## 2.0 SITE DESCRIPTION AND BACKGROUND

This section provides a description of the Capital Area of Investigation (as shown on Figure 2) within which the PFS-N and 5900 1st Avenue South buildings are located and a summary of each building's background, including a discussion of the basis for each VI mitigation plan and the SSDSs's operation.

### 2.1 Site Description

The Capital property (Site) is located at 5801 Third Avenue South between South Mead Street to the north and South Fidalgo Street to the south, and between 4th Avenue South to the east and 1st Avenue South to the west in Section 39, Township 24 South, Range 4 East in Seattle, King County, Washington (Figure 2). The Site is one of several sources of halogenated volatile organic compounds (HVOCs) within the West of 4th remediation site. Groundwater impacted with trichloroethene (TCE) extends downgradient to the south-southwest from the property. The Capital Area of Investigation is defined as the area south of South Mead Street, east of 1st Avenue South, north of South Front Street, and west of 4th Avenue South, and includes the property on the northwest corner of 4th Avenue South and South Mead Street (Farallon 2009b; Figure 2). The Capital Area of Investigation is within Seattle city limits in King County, Washington in an area zoned for industrial light manufacturing. Properties within the Capital Area of Investigation include a mixture of light industrial and commercial properties.

The PFS-N building is located adjacent to the east end of Capital Plant 4 (Figure 2), and is used by Pacific Food Systems, Inc. for warehouse storage, equipment maintenance, and machining.

The 5900 1st Avenue South building is located within the Capital Area of Investigation, south (downgradient) of Capital Plant 2 (Figure 2) and was previously used by Natus Medical Inc. for the manufacture and distribution of medical equipment. The building has also been historically referred to as the Olympic Medical building in prior Site documents. Natus Medical Inc., the most recent tenant, vacated the building between October and December 2020. The building is owned by CenterPoint Properties and was vacant during the 2022 time period when final sampling and shutdown activities occurred.

### 2.2 5900 1st Avenue South (Former Natus Medical and Former Olympic Medical)

#### 2.2.1 Background

The 5900 1st Avenue South building is located south of the Capital Plant 1 and Plant 5 buildings.<sup>a</sup> According to prior Site documents prepared by others (Farallon 2009a), Phillips Services Corporation (PSC) initially conducted a Tier 3 VI assessment at the building; subsequently, Capital was identified as the lead business responsible for VI mitigation.

The Tier 3 VI assessment was conducted in 2005 and included sampling indoor air to determine whether commercial indoor air cancer exceedance factors (CEFs) and non-cancer exceedance factors (NCEFs)

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<sup>a</sup> There are no known HVOC releases from Capital Plant 1 and Plant 5.

exceeded their respective ratio benchmarks in place at the time.<sup>b</sup> The warehouse and manufacturing area results exceeded CEFs and NCEF in the building, and a VI mitigation system was proposed by PSC for those areas based on the concentrations of TCE detected in indoor air (Farallon 2009a). Subsequent additional indoor air sampling by GeoEngineers Inc. in 2006 confirmed exceedances of TCE screening levels in effect at the time. In January of 2009, Farallon implemented mitigation in the form of a SSDS within the 5900 1st Avenue South building (Farallon 2009a). The VI mitigation system was designed according to specifications defined in the *Vapor Intrusion Mitigation Work Plan, Olympic Medical Facility, Seattle, Washington* (Farallon 2009b).

Natus Medical Inc., the former tenant, began closing its operation and vacating the building in 2020. Natus Medical Inc. completed closure of its operations in 2021 and the property remained vacant for the entirety of 2022 during SSDS Shut Down and confirmation sampling.

## 2.2.2 July 2022 SSDS Shut Down

The SSDS at 5900 1st Avenue South was shut down in 2022 in accordance with the *Work Plan for Vapor Intrusion Mitigation System Shut Down* Technical Memorandum (Landau 2022a), which was approved by Ecology in June 2022. Confirmation sampling was conducted during the third quarter 2022 and a draft report documenting the results of the confirmation sampling was submitted to Ecology in October 2022 (Landau 2022b). The report recommended permanent shutdown and decommissioning of the SSDS based on results below screening levels in both indoor air and sub-slab soil gas. Therefore, periodic inspection, monitoring, and maintenance of the SSDS were not conducted in 2023 and 2024 following the shut down and the results included herein do not include monitoring results for the 5900 1<sup>st</sup> Avenue South site.

## 2.3 PFS-N Building

### 2.3.1 Background

According to prior Site documents prepared by others, the HVOCs tetrachloroethene (PCE) and TCE were detected in soil gas at the PFS-N building in April 2011. The concentrations exceeded the screening levels used at the time to evaluate potential VI risk, which triggered indoor air analysis to further evaluate indoor air conditions (Farallon 2017). The results from the assessment of indoor and outdoor ambient air, conducted between 2012 and 2014, showed TCE concentrations in indoor air and VI was suspected to be contributing to the indoor air conditions.

Tier 4 mitigation measures were implemented in 2015, which consisted of an SSDS. Adjustments were made to optimize and confirm the extent of the negative pressure field exerted by the mitigation system (extension of the discharge stack, and additional differential pressure monitoring points) in 2017 and 2018. Despite implementation and optimization of the mitigation system, TCE results from indoor air sampling events remained relatively consistent, indicating a background TCE source, not VI, was the cause of volatile organic compounds in indoor air at PFS-N.

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<sup>b</sup> A site-specific VI evaluation method was developed by PSC and Ecology because Washington had no published guidance or VI screening levels at the time.

VI mitigation design specifications for the PFS-N building were developed in accordance with the *Vapor Intrusion Mitigation Design Plan* (Farallon 2014b). The need for VI mitigation at the PFS-N building was based on results from the *Tier 3 Vapor Intrusion Assessment* (Farallon 2014a, b).

### 2.3.2 2021 Chemical Inventory

Monitoring results at PFS-N showing indoor air TCE concentrations remained unchanged with the mitigation system operational indicated the presence of a background source of TCE in indoor air. As documented in the 2021 Annual Vapor Intrusion Mitigation Status Report (Landau 2022c), a chemical inventory completed by Landau in September 2021 identified a product being used at PFS-N that contains 30 to 50 percent TCE. The product, ZEP 45, is a spray can product used to clean parts; several spray cans were observed in the space including one sitting on a work bench. The presence of a TCE-containing compound explains the presence of the TCE concentrations in indoor air as well as why concentrations in indoor air remained unchanged following the installation of the SSDS. Further discussion and evaluation of this background source of TCE at PFS-N was summarized in the 2021 Annual Vapor Intrusion Mitigation Status Report (Landau 2022c).

### 2.3.3 Background source removal

After the Zep 45 product was identified (i.e., from the March 2022 monitoring event on), Landau instructed PFS-N personnel to remove all ZEP 45 in advance of sampling activities. Varying levels of compliance with these instructions were observed but in general, the tenant complied with the instructions or allowed the sampling team to remove the product prior to sampling. The tenant appeared to comply with the instructions for the 2023 monitoring events, as no ZEP 45 was observed during either sampling event. Removal of the product during sampling resulted in a significant decrease in indoor air TCE concentrations and all measured concentrations were below the current indoor air screening level for commercial workers of 2.85 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Based on discussions with the tenant, they are continuing to use the Zep 45 product outside of sampling events but are using it more sparingly. Residual low-level TCE concentrations in indoor air are likely the result of continued product use outside of the sampling events and off gassing from parts and porous surfaces such as the wood work benches.

### 2.3.4 August 2023 SSDS Shut Down and Confirmation Monitoring

Following the removal of the background source during sampling, TCE concentrations in indoor air were consistently below the indoor air screening level and influent samples from the SSDS showed soil gas concentrations were also below the current TCE sub-slab soil gas screening level for commercial workers of 95  $\mu\text{g}/\text{m}^3$ . The data indicated that the SSDS was not needed to control indoor air TCE concentrations. A work plan for shutdown and confirmation sampling of the PFS-N SSDS was submitted to Ecology (Landau 2023).

The SSDS at PFS-N was shut down on August 16, 2023 in accordance with the work plan (Landau 2023). Confirmation sampling was conducted in August, September, and December 2023. A report documenting the shutdown and results of the confirmation sampling has been prepared and submitted

to Ecology (PFS-N Shut Down Memo, Landau 2025). The confirmation sampling results indicate permanent shutdown and decommissioning of the SSDS can occur based on results below screening levels in indoor air, including worst-case winter conditions. Therefore, no periodic inspection, monitoring, or maintenance of the SSDS was conducted in 2024.

## 3.0 2023 INSPECTION, MONITORING, AND MAINTENANCE PROCEDURES

This section presents the inspection and monitoring conducted at the PFS-N building during the 2023 period. As noted above, no inspections or monitoring were conducted at the 5900 1st Avenue South building in 2023 or 2024 or at the PFS-N building in 2024 due to system shutdown following the confirmation sampling. Inspection and monitoring at PFS-N were conducted in accordance with the Vapor Intrusion, Inspection, Monitoring, and Maintenance (VIIMM) Work Plan, Pacific Seafoods North building (Farallon 2015b).

### 3.1 Inspections and Monitoring

Prior to shutdown in August 2023, periodic inspection and monitoring were conducted to confirm that the PFS-N SSDS was operating effectively. Inspection and monitoring of the SSDS included the following:

- General system component inspection
- Negative pressure field extension (PFE) monitoring
- Reviewing the onsite SSDS operations documentation maintained by the trained tenant contact
- Periodic air quality monitoring.

#### 3.1.1 Tenant Inspections

Inspections by the tenant were conducted monthly in 2023 until the August shutdown to ensure that the SSDS was operating properly. The building tenant was to contact the designated consultant and/or Capital personnel if the SSDS was not operating properly.

#### 3.1.2 Annual Inspections

An annual inspection was conducted in 2023 to observe and document the condition of the SSDS and to record changes to each building and surrounding area that could affect the performance of the SSDS. The annual inspection consisted of observing and documenting the condition of the components for the SSDS and any structural changes or modifications to the building and to adjacent buildings or structures, as well as recording the SSDS's current pressure gauge measurements. Previously documented pressure gauge measurements were used for comparison during the inspections. Photographs were taken during the inspection, as necessary, to document any deterioration of materials (e.g., cracks in piping, mounting damage) or other pertinent changes in the condition of the SSDS, building structure, or other factors that could have impacted the system's operation or effectiveness.

#### 3.1.3 Pressure Field Extension Monitoring

PFE monitoring was conducted at PFS-N in March 2023. PFE monitoring consisted of measuring the pressure differential across each building slab while the SSDS was operating. The results from PFE monitoring were used to confirm that the negative pressure field extended across the designated mitigation area.

Five permanent sub-slab monitoring ports were previously installed in the building slab at the PFS-N building for PFE monitoring. The sub-slab monitoring ports are flush-mounted to the building slab and have a tamper-resistant cap. The sub-slab monitoring ports were used for PFE monitoring to verify the negative pressure field extends across the slab under the entire building. Effective depressurization occurs at any measurable vacuum; however, for evaluation purposes, a negative pressure of 0.005 inches of water (IOW) column or more at each of the sub-slab monitoring ports is more than sufficient to demonstrate effective depressurization. The tamper-resistant cap secures the sub-slab monitoring port closed between PFE monitoring events to maintain the integrity of the depressurization applied by the SSDS.

### 3.1.4 Air Quality Monitoring

Air quality monitoring was performed at the PFS-N building. The data were:

- Compared with previous VI assessment data and current screening levels to evaluate the reduction in HVOCs over time
- Used to evaluate system performance.

During normal operations, air quality monitoring was conducted semiannually in accordance with the VIIMM Work Plan (Farallon 2015b). During 2023, air quality monitoring was conducted in March as part of the semiannual monitoring, in August at the time of the SSDS shutdown, and in September and December as part of the shutdown confirmation sampling. Air samples collected during this reporting period were collected at the designated sampling locations used during previous investigations/sampling events using 6-liter Summa canisters with flow controllers set to collect a sample over an 8-hour duration (see Figures 3 and 4). The indoor and outdoor air samples were analyzed for PCE, TCE, Cis-1,2-dichloroethene (cDCE), Trans-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride by U.S. Environmental Protection Agency Method TO-15 Selected Ion Monitoring. TCE is the primary constituent of concern because it historically exceeded screening criteria. All sampling was performed in accordance with the standard operating procedures established during completion of the Tier 3 VI Assessments (Farallon 2013) and the VIAMM Plan (Farallon 2015a). However, periodic updates to the Ecology Cleanup Levels and Risk Calculations database have resulted in changes to the applicable cleanup levels over time, including establishment of default screening levels for adult commercial workers in buildings that are not used for residential purposes. Indoor air and sub-slab soil gas results collected as part of the 2023 monitoring and confirmation sampling programs were compared to the current cleanup levels. Results and current cleanup levels are presented in Table 1.

## 3.2 System Evaluation

Results from the air quality monitoring, PFE monitoring, groundwater monitoring, and annual inspections were evaluated to evaluate system operation and compliance with indoor air cleanup levels. There were no significant structural changes to the building that would affect vapor intrusion pathways or system performance.

### 3.3 Sub-Slab Depressurization System Maintenance

SSDS maintenance was performed as needed, based on conditions observed during system monitoring and/or optimization visits until SSDS shutdown in August 2023. The following were inspected for potential maintenance needs:

- Exhaust blower, inspected for excessive noise or vibration
- Pressure gauge and pressure measurements, comparison to verify pressure gauge is operating properly and there is no significant deviation between the two measurements
- Piping, inspected for damage or cracks.



## 4.0 2023 INSPECTION, MONITORING, AND MAINTENANCE RESULTS

The 5900 1st Avenue South SSDS startup occurred in January 2009 and the system was shut down in July 2022; system decommissioning is pending Ecology approval.

During the 2023 operational period, the PFS-N SSDS operated continuously until the system was shut down in August 2023. Operation parameters for the PFS-N SSDS are summarized in Table 2. Decommissioning of the PFS-N system is pending Ecology approval.

### 4.1 Inspection, Monitoring, and Maintenance Activities

Inspections of the PFS-N SSDS were conducted on March 29, 2023 and monitoring and inspection results were documented during the site visit. Air quality monitoring in 2023 was conducted in March concurrent with the inspection, in August following shutdown of the SSDS shutdown, and in September and December 2023 for post-shutdown evaluation.

Each sampling event included collecting indoor air samples and an outdoor ambient air sample. During the March monitoring event, an SSDS influent sample was collected. During confirmation sampling events after the system shutdown, sub-slab vapor samples were collected from new vapor sampling ports installed in August 2023. The locations of the samples are depicted on Figure 3. Sampling was conducted in general accordance with the procedures described in the VIIMM Work Plan (Farallon 2015b) and its supporting documents. Air quality monitoring parameters and results are summarized in Table 1. The laboratory analytical reports are provided in Appendix A.

The SSDS influent sampling consisted of a 5-minute grab sample of the combined soil gas influent being extracted by the SSDS prior to discharge to the exhaust stack. The purpose of this sampling was to confirm that the discharge to outdoor ambient air would comply with Puget Sound Clean Air Agency (PSCAA) regulations (less than 1,000 pounds per year total HVOCs), and to evaluate overall trends in soil gas concentrations. The sample was collected using a 1-liter Summa canister at a sampling port located prior to entry to the SSDS blower. Samples were collected while the system was operating. A slight vacuum was maintained in the canister to mitigate potential loss of the sampled influent.

### 4.2 Inspection, Monitoring, and Maintenance Results

Results from the PFS-N air quality sampling and the SSDS operation monitoring are described below. The air quality monitoring sample locations are depicted on Figure 3. The sampling parameters, screening levels, and results are summarized on Table 1. Table 2 provides a summary of SSDS operation parameters for PFS-N.

#### 4.2.1 PFS-N Results

As discussed in Section 2.3, sampling results at PFS-N (including results of 2023 sampling) indicated the presence of a background TCE source in the building was the source of elevated TCE previously detected in indoor air and beginning in 2022, the tenant was instructed to remove all TCE-containing products in

advance of monitoring. Air quality monitoring results from samples collected in 2023 indicate that Constituents of Concern were detected at lower concentrations than prior rounds of monitoring at PFS-N (Table 1 and Figure 4), when the TCE-containing products were present in the space during sampling. 2023 sampling results for detected constituents, from both routine sampling and shutdown investigation sampling, are summarized below:

#### 4.2.1.1 TCE

- 2023 sample results, both pre and post shutdown, show TCE concentrations in indoor air ranging from 0.177  $\mu\text{g}/\text{m}^3$  to 0.672  $\mu\text{g}/\text{m}^3$ . All 2023 indoor air concentrations were below the Model Toxics Control Act (MTCA) Method B indoor air cleanup level for commercial workers of 2.85  $\mu\text{g}/\text{m}^3$ .
- TCE was detected above the laboratory reporting limit in the outdoor air sample collected in March but was not detected in the August, September, or December outdoor air samples.
- The influent SSDS influent TCE concentration, representative of average soil gas concentrations, was 44.0  $\mu\text{g}/\text{m}^3$  in March 2023 (below the MTCA Method B Commercial Worker Sub-Slab Soil Gas screening level of 95  $\mu\text{g}/\text{m}^3$ ).
- Measured TCE sub-slab soil gas concentrations from soil gas sampling ports ranged from 33.0  $\mu\text{g}/\text{m}^3$  to 1,960  $\mu\text{g}/\text{m}^3$ <sup>c</sup>. Although sub-slab soil gas TCE concentrations are above the screening level, indoor air concentrations remained low; in fact, the December 2023 post shutdown indoor air concentrations (worst case atmospheric conditions) were among the lowest measured concentrations.

#### 4.2.1.2 PCE

- PCE was detected above the laboratory reporting limit in all samples except the December outdoor air sample collected in 2023. Detected concentrations in indoor air ranged from 0.212  $\mu\text{g}/\text{m}^3$  to 0.588  $\mu\text{g}/\text{m}^3$ , all well below the MTCA Method B Commercial Worker indoor air screening level of 44.9  $\mu\text{g}/\text{m}^3$ .
- The detected PCE concentration in outdoor air during the March, August, and September sampling events ranged from 0.0692  $\mu\text{g}/\text{m}^3$  to 0.115  $\mu\text{g}/\text{m}^3$ . Typically, outdoor air concentrations would be subtracted from indoor air concentrations to normalize the indoor air results. However, for the purposes of this report, original data are reported.
- The SSDS influent PCE concentration in March, representative of average soil gas concentrations, was 13.6  $\mu\text{g}/\text{m}^3$ , below the MTCA Method B Commercial Worker Sub-Slab Soil Gas screening level of 1,200  $\mu\text{g}/\text{m}^3$ .
- PCE sub-slab soil gas concentrations from soil gas sampling ports ranged from 0.914  $\mu\text{g}/\text{m}^3$  to 1,080  $\mu\text{g}/\text{m}^3$ , below the MTCA Method B Commercial Worker Sub-Slab Soil Gas screening level of 1,500  $\mu\text{g}/\text{m}^3$ .

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<sup>c</sup> One sub-slab sample had an estimated value of 6,120E  $\mu\text{g}/\text{m}^3$ ; however, the concentration was outside of the quantitation range

#### 4.2.1.3 Vinyl Chloride

- Vinyl Chloride was detected above the laboratory reporting limit in both the indoor air sample and the outdoor air sample collected in August ( $0.0600 \mu\text{g}/\text{m}^3$ , and  $0.0762 \mu\text{g}/\text{m}^3$  respectively). Concentrations were well below the MTCA Method B Commercial Worker indoor air screening level of  $1.33 \mu\text{g}/\text{m}^3$ . The compound was not detected above the laboratory reporting limit in any other sample.

#### 4.2.1.4 cDCE

- cDCE was not detected in indoor air or outdoor air at concentrations above the laboratory report limit but was detected in the influent sample and two sub-slab soil gas samples above the laboratory reporting limit. Concentrations ranged from  $0.555 \mu\text{g}/\text{m}^3$  to  $3.00 \mu\text{g}/\text{m}^3$ . These levels are well below the MTCA Method B Commercial Worker Sub-Slab Soil Gas screening level of  $5,200 \mu\text{g}/\text{m}^3$ .

#### 4.2.1.5 SSDS Operation

The SSDS operating parameters were measured in March 2023, and were not measured in September due to the SSDS shutdown that was completed in August. In March, operating vacuum was measured at 3.5 IOW, resulting in a measured negative pressure field extension vacuum range of 0.012 to 0.054 IOW at sub-slab monitoring ports SSMP-1 through SSMP-5. System flowrate was measured at 29.20 standard cubic feet per minute. Table 2 provides a summary of the March 2023 SSDS operation parameters. Pressure measurements indicate the SSDS maintained a sufficiently negative pressure field across the entire building slab during its operation prior to August 2023.

The SSDS soil gas influent sample provided a measurement of average soil gas concentrations beneath the slab and was also used to verify that total emissions remain below PSCAA regulations. SSDS influent sample concentrations have been declining since the SSDS startup with a steady-state rate of removal from approximately 2016 to March 2023. Additionally, influent sample concentrations confirm annual discharge remained below PSCAA requirements through the final influent sample, collected in March 2023. Figure 4 shows the TCE concentration trend in influent samples over time.

## 5.0 CONCLUSIONS

### 5.1 5900 1st Avenue South

The SSDS system was shut down in July 2022. Subsequent SSDS and confirmation sampling was conducted during the third quarter 2022 and indicated results below screening levels in both indoor air and sub-slab soil gas. A draft report documenting the results of the confirmation sampling was submitted to Ecology in October 2022 (Landau 2022b). The report recommends decommissioning of the SSDS.

### 5.2 PFS-N

The PFS-N indoor air quality monitoring results for TCE have been below the indoor air cleanup levels since removal of the TCE-containing products during sampling. The tenant continues to use the Zep 45 product that contains TCE outside of the sampling events and residual indoor air concentrations are most likely the result of off-gassing from porous surfaces (e.g. wooden workbenches) or parts. Operation of the SSDS did not affect TCE concentrations in indoor air and the system was therefore shut down in August 2023 followed by three sampling events to confirm that VI is not causing unacceptable indoor air conditions in the absence of the SSDS. The post-shutdown confirmation sampling included a December sampling event when atmospheric conditions present a worst-case scenario for vapor intrusion. All indoor air TCE concentrations remained well below screening levels following SSDS shutdown, including during the December sampling event, where some of the lowest TCE concentrations to date were recorded. A full analysis of the shutdown and confirmation sampling is detailed in the PFS-N Shut Down Tech Memo (Landau 2025). Based on the data collected before and after the SSDS shut-down, the SSDS system does not provide a reduction in indoor air TCE concentrations and permanent decommissioning of the SSDS is recommended.

## 6.0 PLANNED WORK FOR 2025

No additional sampling is planned for 2025. Based on the results of the previous investigations decommissioning of the SSDS systems at both 5900 1<sup>st</sup> Avenue and PFS-N are recommended for 2025, pending Ecology concurrence. Decommissioning of the SSDSs will be conducted by a licensed contractor and will include decommissioning the extraction vaults, removal of system piping, disconnecting power supplies, and removal of the roof-mounted blowers. The schedule for this task is based on Ecology approval and contractor availability.

## 7.0 USE OF THIS REPORT

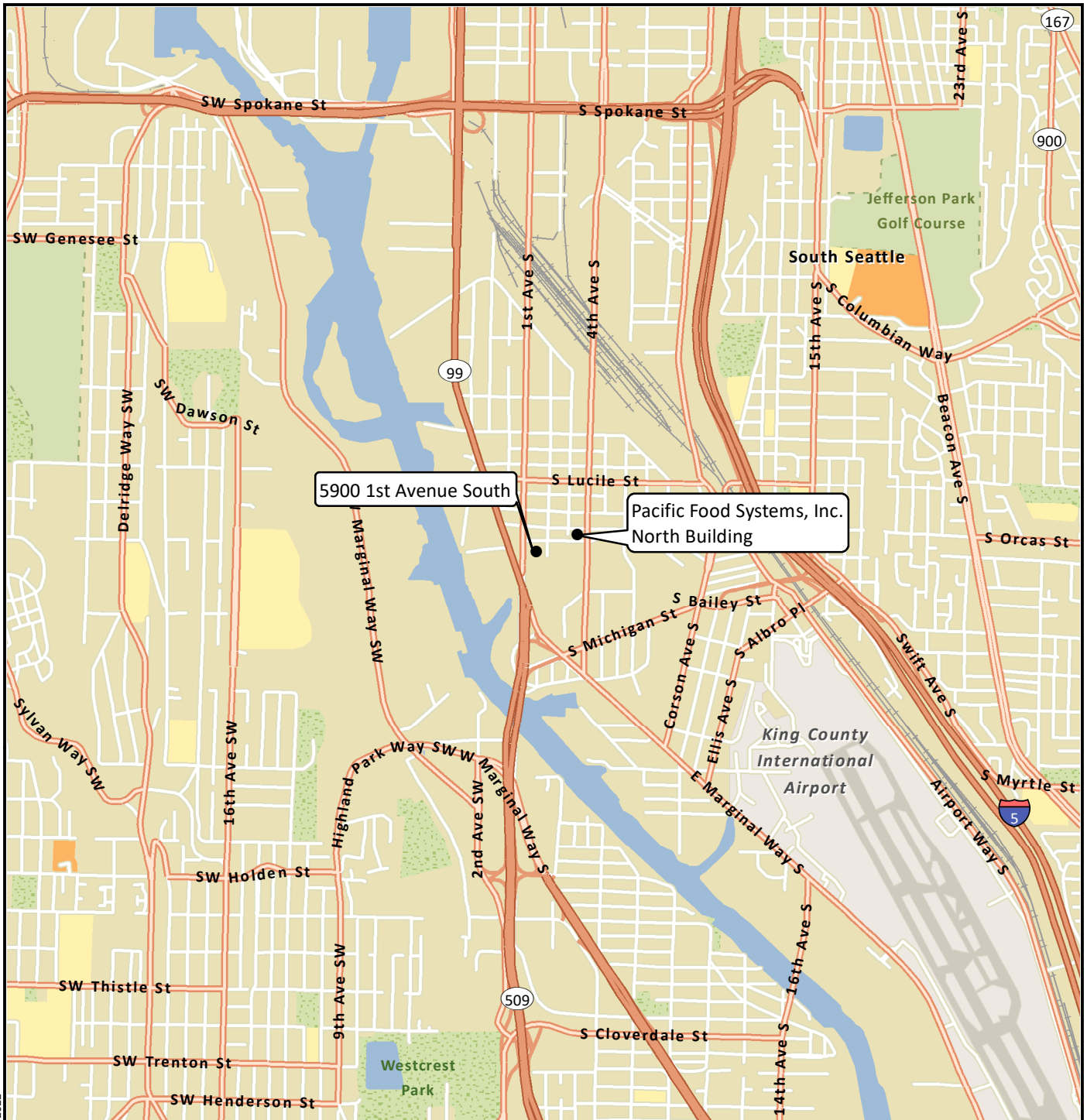
This report has been prepared for the exclusive use of Capital Industries and applicable regulatory agencies for specific application to the Capital Area of Investigation and Agreed Order No. DE 10402 Site. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. Landau makes no other warranty, either express or implied.

## 8.0 REFERENCES

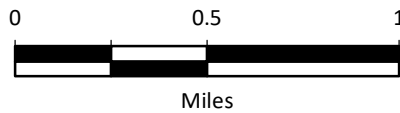
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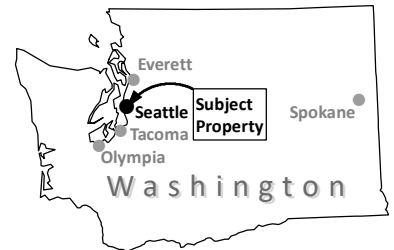


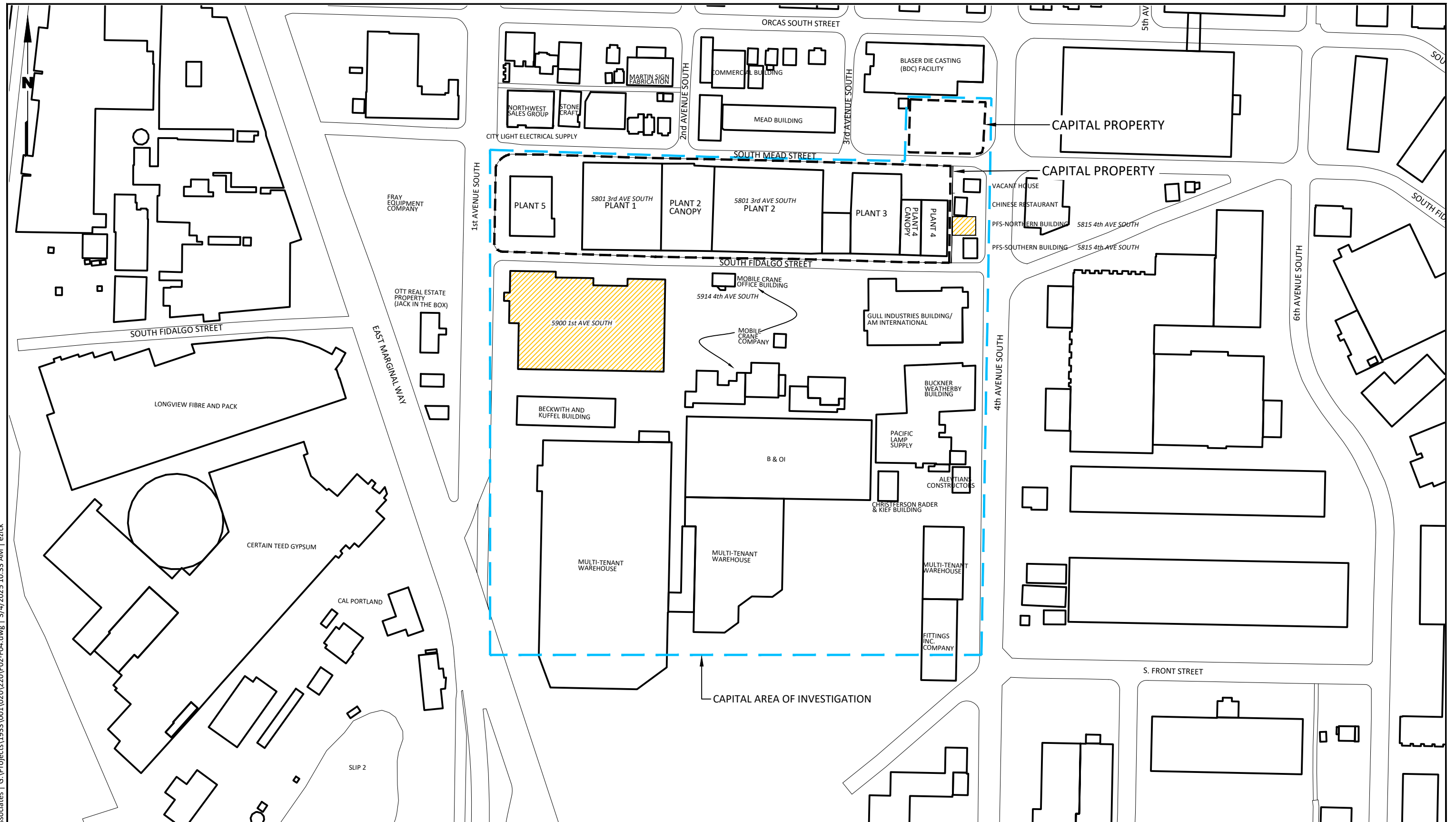


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Data Source: Esri 2012





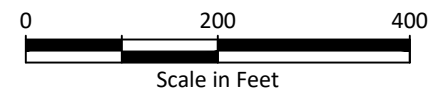
Legend



Building with previous vapor intrusion mitigation system.

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



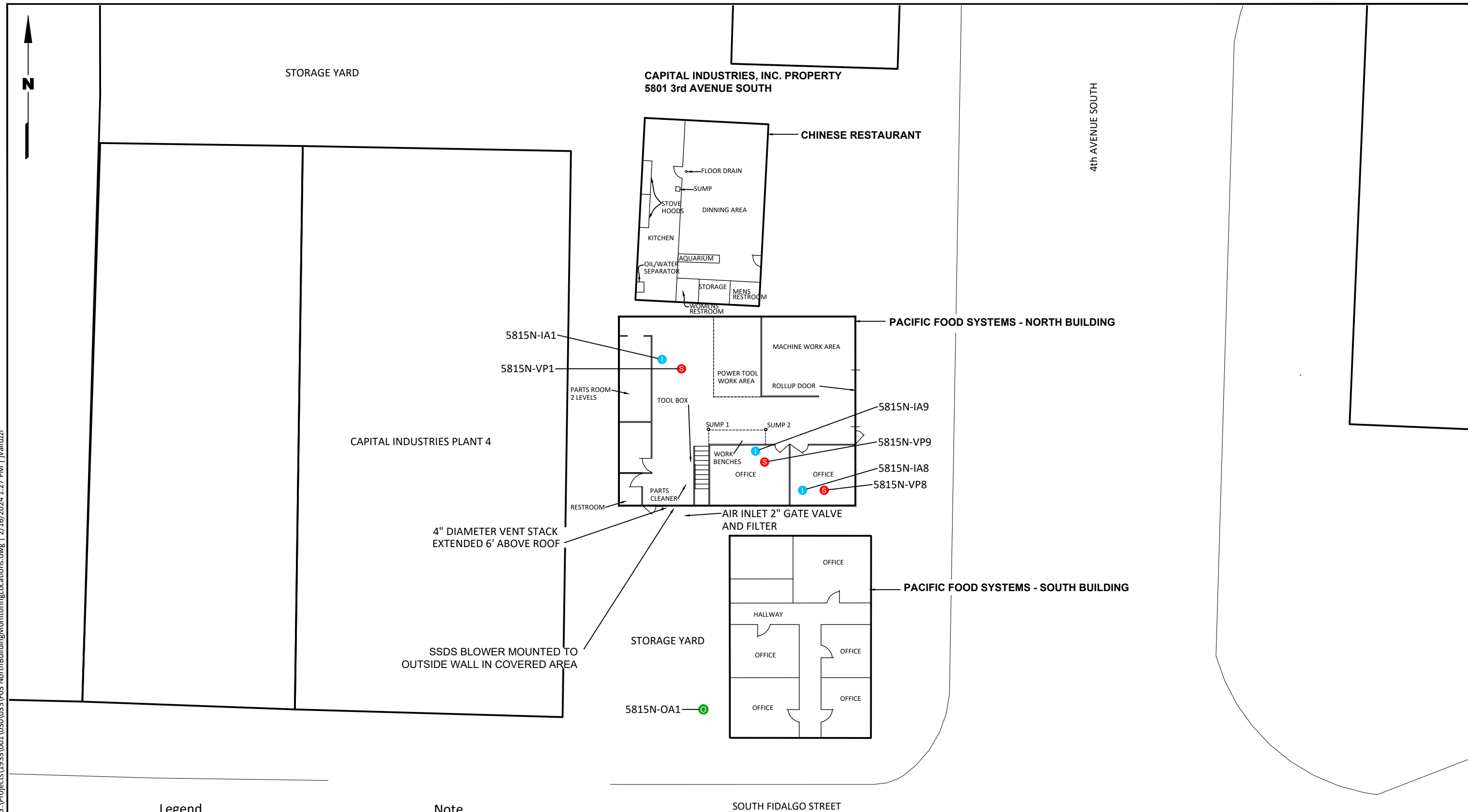
Source: Farallon Consulting, August 2017

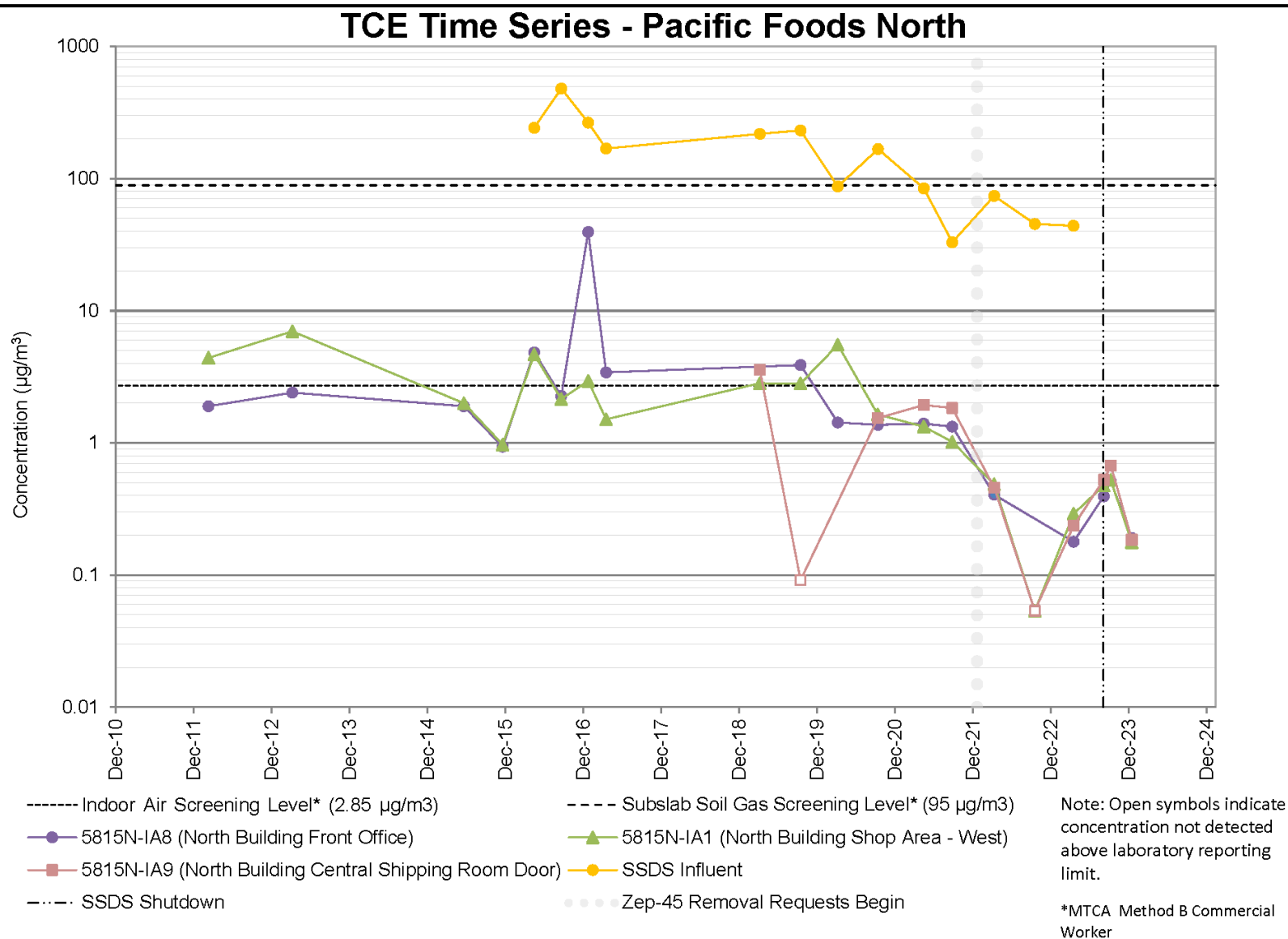
Capital Industries, Inc.  
Seattle, Washington

Site Map

Figure  
2

Landau Associates | G:\Projects\1933\001\030\033\F03 NorthBuildingMonitoringLocations.dwg | 2/16/2024 1:27 PM | jvalluzzi





2/21/2024\\tacoma3\PROJECT\1933\1933\_001 Capital Industries\R\2023 Annual VI Mitigation Status Report\Figures\F04\_TimeSeriesPlots\_PacificFood

Landau Associates

Table 1

**Summary of 2023 Vapor Intrusion Assessment Analytical Results**  
**Pacific Food Systems, Inc. North Building**  
**5815 4th Avenue South**  
**Seattle, Washington**

Sample Type	Location	Location Description	Sample Identification	Sample Date	Notes	Volatile Organic Compounds (µg/m³; TO-15, TO-15 SIM)					
						PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Lowest Commerical Worker Indoor Air MTCA Method B Cleanup Level (a)						44.9	2.85	156	156	779	1.33
Indoor Air (c)	5815N-IA1	Western side of Pacific Food Systems North Building Shop Area	5815N-IA1-20230329	3/29/2023	Operational	0.530	0.291	0.0972 U	0.0977 U	0.0217 U	0.198 U
			5815N-IA1-20230817	8/17/2023	Post-Shutdown	0.321	0.476	0.198 U	0.595 U	0.0397 U	0.0600
			5815N-IA1-20230919	9/19/2023		0.229	0.524	0.198 U	0.595 U	0.0397 U	0.0256 U
			5815N-IA1-20231227	12/27/2023		0.212	0.177	0.198 U	0.595 U	0.0397 U	0.0256 U
	5815N-IA8	Pacific Food Systems North Building Front Office	5815N-IA8-20230329	3/29/2023	Operational	0.588	0.179	0.0972 U	0.0977 U	0.0217 U	0.198 U
			5815N-IA8-20230817	8/17/2023	Post-Shutdown	0.271	0.395	0.317 U	0.952 U	0.0634 U	0.0409 U
			5815N-IA8-20230919	9/19/2023		0.214	0.517	0.198 U	0.595 U	0.0397 U	0.0256 U
			5815N-IA8-20231227	12/27/2023		0.258	0.191	0.198 U	0.595 U	0.0397 U	0.0256 U
	5815N-IA9	Pacific Food Systems North Building Central Shipping Room Proximate to Door	5815N-IA9-20230329	3/29/2023	Operational	0.534	0.236	0.0972 U	0.0977 U	0.0217 U	0.198 U
			5815N-IA9-20230817	8/17/2023	Post-Shutdown	0.464 J	0.526 J	0.476 U	1.43 U	0.0952 U	0.0613 U
			5815N-IA9-20230919	9/19/2023		0.218	0.672	0.198 U	0.595 U	0.0397 U	0.0256 U
			5815N-IA9-20231227	12/27/2023		0.245	0.185	0.198 U	0.595 U	0.0397 U	0.0256 U
Outdoor Air	5815N-OA1	Outside east of Pacific Food Systems buildings on telephone pole	5815N-OA1-20230329	3/29/2023	Operational	0.115	0.0119	0.0972 U	0.0977 U	0.0217 U	0.198 U
			5815N-OA1-20230817	8/17/2023	Post-Shutdown	0.344	0.0645 U	0.238 U	0.714 U	0.0476 U	0.0762
			5815N-OA1-20230919	9/19/2023		0.0692	0.0537 U	0.198 U	0.595 U	0.0397 U	0.0256 U
			5815N-OA1-20231227	12/27/2023		0.0678 U	0.0537 U	0.198 U	0.595 U	0.0397 U	0.0256 U
Lowest Commerical Worker Sub-slab Soil Gas MTCA Method B Screening Level (b)						1,500	95	5,200	5,200	26,000	44
Sub-Slab	5815N-VP1	Located near 5815N-IA1	5815N-VP1-20230818	8/18/2023	Post-Shutdown	5.76	316	0.793 U	2.38 U	0.159 U	0.102 U
			5815N-VP1-20230920	9/20/2023		97.5	1,960	2.40	2.38 U	0.159 U	0.102 U
			5815N-VP1-20231228	12/28/2023		1,080	6,120 E	3.00	2.38 U	0.159 U	0.102 U
	5815N-VP8	Located near 5815N-IA8	5815N-VP8-20230818	8/18/2023	Post-Shutdown	1.82	33.0	0.793 U	2.38 U	0.159 U	0.102 U
			5815N-VP8-20230920	9/20/2023		0.914	61.9	0.793 U	2.38 U	0.159 U	0.102 U
			5815N-VP8-20231228	12/28/2023		50.4	338	0.793 U	2.38 U	0.159 U	0.102 U
	5815N-VP9	Located near 5815N-IA9	5815N-VP9-20230818	8/18/2023	Post-Shutdown	3.75	180	0.793 U	2.38 U	0.159 U	0.102 U
			5815N-VP9-20230920	9/20/2023		2.77	149	0.793 U	2.38 U	0.159 U	0.102 U
			5815N-VP9-20231228	12/28/2023		52.9	403	0.793 U	2.38 U	0.159 U	0.102 U
SSDS	SSDS Influent	SSDS Influent Sample Port	5815N-INFLUENT-20230329	3/29/2023	Operational	13.6	44.0	0.555	0.391 U	0.0868 U	0.791 U

**Notes:**

- Bold** text indicates detected analyte  
Blue shading indicates detected analyte exceeds lowest Method B screening level for commercial workers.  
(a) Indoor air screening levels are compared to indoor air results only and are the lowest of Cancer or Noncancer levels.  
(b) Sub-slab screening levels are compared to subslab vapor results only and are the lowest of Cancer or Noncancer levels.  
(c) Indoor air concentrations are not normalized to outdoor air concentrations.  
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
E = Value above quantitation range

**Acronyms/Abbreviations:**

- $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter  
MTCA = Model Toxics Control Act  
Pacific Food Systems = Pacific Food Systems, Inc.  
PCE = tetrachloroethene  
SSDS = subslab depressurization system  
TCE = trichloroethene

**Table 2**  
**Summary of 2023 Pacific Food Systems, Inc. North Building**  
**SSDS Operation Parameters**  
**Seattle, Washington**

Date	Pressure Gauge Vacuum Reading (IOW)					Pressure Gauge Vacuum Reading (IOW)	Field-Measured Operating Vacuum (IOW)	SVE System Flow (scfm)	Pressure Gauge/Field-Measured Pressure Differential (percent)	Lab-Measured Influent Concentration		Removal Rate <sup>2</sup> (µg/minute)		Projected Annual Discharge (lbs/year)	
	SSMP-1	SSMP-2	SSMP-3 <sup>1</sup>	SSMP-4 <sup>1</sup>	SSMP-5 <sup>1</sup>					PCE	TCE	PCE	TCE	PCE	TCE
3/29/2023	0.054	0.014	0.012	0.020	0.010	3.2	3.5	29.20	109%	13.6	44.0	11.2	36.4	0.013	0.042
<b>VIMMWPs SDS Operations Goals</b>	<b>&gt;0.005</b>	<b>&gt;0.005</b>	<b>&gt;0.005</b>	<b>&gt;0.005</b>	<b>&gt;0.005</b>	<b>NA</b>		<b>NA</b>	<b>75 - 125 percent</b>	<b>NA</b>				<b>1,000 lbs/year</b>	

**Notes:**<sup>1</sup> Subslab monitoring ports SSMP-3 through SSMP-5 were installed in April 2018.<sup>2</sup> Removal Rate = SVE flow \* Measured PCE or TCE concentration**Acronyms and Abbreviations:**

% = percent

IOW = inches of water

lbs = pounds

µg = micrograms

m<sup>3</sup> = cubic meter

min = minute

NA = not applicable

PCE = tetrachloroethene

scfm = standard cubic feet per minute

SSDS = subslab depressurization system

SSMP = subslab monitoring probe

SVE = soil vapor extraction

TCE = trichloroethene

VIMMWPs = Vapor Intrusion, Inspection, Monitoring, and Maintenance Work Plan

## Laboratory Reports



**Fremont**  
*Analytical*

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: Capital Industries**

**Work Order Number: 2303662**

April 06, 2023

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 5 sample(s) on 3/29/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)



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**CLIENT:** Landau Associates  
**Project:** Capital Industries  
**Work Order:** 2303662

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**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2303662-001	5815N-IA8-20230329	03/29/2023 8:20 AM	03/29/2023 5:19 PM
2303662-002	5815N-IA9-20230329	03/29/2023 8:22 AM	03/29/2023 5:19 PM
2303662-003	5815N-IA1-20230329	03/29/2023 8:23 AM	03/29/2023 5:19 PM
2303662-004	5815N-OA1-20230329	03/29/2023 8:25 AM	03/29/2023 5:19 PM
2303662-005	5815N-Influent-20230329	03/29/2023 10:10 AM	03/29/2023 5:19 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Landau Associates  
**Project:** Capital Industries

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates

**WorkOrder:** 2303662

**Project:** Capital Industries

**Client Sample ID:** 5815N-IA8-20230329

**Date Sampled:** 3/29/2023

**Lab ID:** 2303662-001A

**Date Received** 3/29/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.00547	<0.0217	0.00547	0.0217		EPA-TO-15	04/01/2023	LB
cis-1,2-Dichloroethene	<0.0245	<0.0972	0.0245	0.0972		EPA-TO-15	04/01/2023	LB
Tetrachloroethene (PCE)	0.0867	0.588	0.0111	0.0753		EPA-TO-15	04/01/2023	LB
trans-1,2-Dichloroethene	<0.0246	<0.0977	0.0246	0.0977		EPA-TO-15	04/01/2023	LB
Trichloroethene (TCE)	0.0332	0.179	0.00125	0.00672		EPA-TO-15	04/01/2023	LB
Vinyl chloride	<0.0774	<0.198	0.0774	0.198		EPA-TO-15	04/01/2023	LB
Surr: 4-Bromofluorobenzene	92.1 %Rec	--	70-130	--		EPA-TO-15	04/01/2023	LB

**Client Sample ID:** 5815N-IA9-20230329

**Date Sampled:** 3/29/2023

**Lab ID:** 2303662-002A

**Date Received** 3/29/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.00547	<0.0217	0.00547	0.0217		EPA-TO-15	04/01/2023	LB
cis-1,2-Dichloroethene	<0.0245	<0.0972	0.0245	0.0972		EPA-TO-15	04/01/2023	LB
Tetrachloroethene (PCE)	0.0786	0.534	0.0111	0.0753		EPA-TO-15	04/01/2023	LB
trans-1,2-Dichloroethene	<0.0246	<0.0977	0.0246	0.0977		EPA-TO-15	04/01/2023	LB
Trichloroethene (TCE)	0.0439	0.236	0.00125	0.00672		EPA-TO-15	04/01/2023	LB
Vinyl chloride	<0.0774	<0.198	0.0774	0.198		EPA-TO-15	04/01/2023	LB
Surr: 4-Bromofluorobenzene	91.3 %Rec	--	70-130	--		EPA-TO-15	04/01/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2303662

**Project:** Capital Industries

**Client Sample ID:** 5815N-IA1-20230329

**Date Sampled:** 3/29/2023

**Lab ID:** 2303662-003A

**Date Received** 3/29/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.00547	<0.0217	0.00547	0.0217		EPA-TO-15	04/01/2023	LB
cis-1,2-Dichloroethene	<0.0245	<0.0972	0.0245	0.0972		EPA-TO-15	04/01/2023	LB
Tetrachloroethene (PCE)	0.0781	0.530	0.0111	0.0753		EPA-TO-15	04/01/2023	LB
trans-1,2-Dichloroethene	<0.0246	<0.0977	0.0246	0.0977		EPA-TO-15	04/01/2023	LB
Trichloroethene (TCE)	0.0541	0.291	0.00125	0.00672		EPA-TO-15	04/01/2023	LB
Vinyl chloride	<0.0774	<0.198	0.0774	0.198		EPA-TO-15	04/01/2023	LB
Surr: 4-Bromofluorobenzene	91.7 %Rec	--	70-130	--		EPA-TO-15	04/01/2023	LB

**Client Sample ID:** 5815N-OA1-20230329

**Date Sampled:** 3/29/2023

**Lab ID:** 2303662-004A

**Date Received** 3/29/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.00547	<0.0217	0.00547	0.0217		EPA-TO-15	04/01/2023	LB
cis-1,2-Dichloroethene	<0.0245	<0.0972	0.0245	0.0972		EPA-TO-15	04/01/2023	LB
Tetrachloroethene (PCE)	0.0170	0.115	0.0111	0.0753		EPA-TO-15	04/01/2023	LB
trans-1,2-Dichloroethene	<0.0246	<0.0977	0.0246	0.0977		EPA-TO-15	04/01/2023	LB
Trichloroethene (TCE)	0.00222	0.0119	0.00125	0.00672		EPA-TO-15	04/01/2023	LB
Vinyl chloride	<0.0774	<0.198	0.0774	0.198		EPA-TO-15	04/01/2023	LB
Surr: 4-Bromofluorobenzene	91.8 %Rec	--	70-130	--		EPA-TO-15	04/01/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2303662

**Project:** Capital Industries

**Client Sample ID:** 5815N-Influent-20230329

**Date Sampled:** 3/29/2023

**Lab ID:** 2303662-005A

**Date Received** 3/29/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0219	<0.0868	0.0219	0.0868		EPA-TO-15	04/01/2023	LB
cis-1,2-Dichloroethene	0.140	0.555	0.0981	0.389		EPA-TO-15	04/01/2023	LB
Tetrachloroethene (PCE)	2.00	13.6	0.0444	0.301		EPA-TO-15	04/01/2023	LB
trans-1,2-Dichloroethene	<0.0985	<0.391	0.0985	0.391		EPA-TO-15	04/01/2023	LB
Trichloroethene (TCE)	8.18	44.0	0.00500	0.0269		EPA-TO-15	04/01/2023	LB
Vinyl chloride	<0.310	<0.791	0.310	0.791		EPA-TO-15	04/01/2023	LB
Surr: 4-Bromofluorobenzene	82.7 %Rec	--	70-130	--		EPA-TO-15	04/01/2023	LB

**Work Order:** 2303662  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R82957</b>		SampType: <b>LCS</b>		Units: <b>ppbv</b>		Prep Date: <b>3/31/2023</b>			RunNo: <b>82957</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>R82957</b>		Analysis Date: <b>3/31/2023</b>					SeqNo: <b>1726172</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	2.00	0.0774	2.000	0	100	70	130				
1,1-Dichloroethene (DCE)	1.90	0.00547	2.000	0	94.8	70	130				
trans-1,2-Dichloroethene	1.84	0.0246	2.000	0	92.0	70	130				
cis-1,2-Dichloroethene	1.58	0.0245	2.000	0	79.2	70	130				
Trichloroethene (TCE)	1.78	0.00125	2.000	0	89.0	70	130				
Tetrachloroethene (PCE)	1.73	0.0111	2.000	0	86.5	70	130				
Surr: 4-Bromofluorobenzene	4.20		4.000		105	70	130				

Sample ID: <b>MB-R82957</b>		SampType: <b>MBLK</b>		Units: <b>ppbv</b>		Prep Date: <b>3/31/2023</b>			RunNo: <b>82957</b>		
Client ID: <b>MBLKW</b>		Batch ID: <b>R82957</b>					Analysis Date: <b>3/31/2023</b>			SeqNo: <b>1726341</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0774									
1,1-Dichloroethene (DCE)	ND	0.00547									
trans-1,2-Dichloroethene	ND	0.0246									
cis-1,2-Dichloroethene	ND	0.0245									
Trichloroethene (TCE)	ND	0.00125									
Tetrachloroethene (PCE)	ND	0.0111									
Surr: 4-Bromofluorobenzene	3.53		4.000		88.2	70	130				

Sample ID: 2303662-005AREP		SampType: REP		Units: ppbv		Prep Date: 4/1/2023			RunNo: 82957		
Client ID: 5815N-Influent-2023032		Batch ID: R82957					Analysis Date: 4/1/2023			SeqNo: 1726306	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.310						0		25	
1,1-Dichloroethene (DCE)	ND	0.0219						0		25	
trans-1,2-Dichloroethene	ND	0.0985						0		25	
cis-1,2-Dichloroethene	0.118	0.0981						0.1401	16.9	25	
Trichloroethene (TCE)	8.29	0.00500						8.181	1.32	25	
Tetrachloroethene (PCE)	2.02	0.0444						2.002	0.727	25	
Surr: 4-Bromofluorobenzene	13.0		16.00		81.4	70	130		0		



**Work Order:** 2303662  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2303662-005AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>4/1/2023</b>			RunNo: <b>82957</b>			
Client ID: <b>5815N-Influent-2023032</b>		Batch ID: <b>R82957</b>					Analysis Date: <b>4/1/2023</b>			SeqNo: <b>1726306</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	



Client Name: **LA**  
 Logged by: **Matt Langston**

Work Order Number: **2303662**  
 Date Received: **3/29/2023 5:19:22 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 6. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒  
 7. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒  
 8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Air Chain of Custody Record & Laboratory Services Agreement

Date: 3/29/23

Page: 1 of 2

Project Name: Capital Industries

Project No: 1933001 ele-011

Location: Seattle, WA

Collected by: Joshua Burback

Reports to (PM): Jennifer Wyke

Email (PM): jwyke@capitalindustries.com and jdyer@capitalindustries.com

Laboratory Project No (Internal):

2303062

Special Remarks: Only analyze for the following:

PEB, TCE, CIS, 1,2 DCE, Trans 1,2 DCE, 1,1 DCE, vinyl chloride

\* Lower reporting limit

All samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure ("Hg)	Sample End Date & Time	Field Final Sample Pressure ("Hg)	Full list VOCs TO15 *	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260	Comments	Final Pressure ("Hg)
5815N-IA8-20230324	17644	IA	6L	8hr	0820 3/29/23	-30	1620 3/29/23	-4	X										-4
5815N-IA9-20230324	FR8-24	IA	6L	8hr	0822 3/29/23	-30	1625 3/29/23	-6	X										-8
5815N-IA1-20230324	17240	IA	6L	8hr	0823 3/29/23	-30	1624 3/29/23	-6	X										-4
5815N-0A1-20230324	17636	OA	6L	8hr	0825 3/29/23	-30	1622 3/29/23	-5	X										-5

Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE L = Landfill D = Digester

Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☒ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

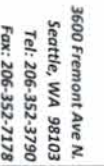
Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Print Name \_\_\_\_\_

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Print Name \_\_\_\_\_

Turn-Around Time: ☒ Standard ☐ Next Day ☐ Same Day ☐ 2 Day ☐ 3 Day ☐ Other, specify \_\_\_\_\_



## Page 1 of 2



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: Capital Industries - PFS**  
**Work Order Number: 2308254**

August 24, 2023

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 4 sample(s) on 8/17/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**  
Data  
Sierra Mott

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS  
**Work Order:** 2308254

---

**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308254-001	5815N-IA8-20230817	08/17/2023 3:42 PM	08/17/2023 4:20 PM
2308254-002	5815N-IA9-20230817	08/17/2023 3:41 PM	08/17/2023 4:20 PM
2308254-003	5815N-IA1-20230817	08/17/2023 1:10 PM	08/17/2023 4:20 PM
2308254-004	5815-OA1-20230817	08/17/2023 3:38 PM	08/17/2023 4:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

---

### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).



### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates  
**WorkOrder:** 2308254  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-IA8-20230817  
**Lab ID:** 2308254-001A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/17/2023  
**Date Received:** 8/17/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0160	<0.0634	0.0160	0.0634	D	EPA-TO-15	08/24/2023	LB
cis-1,2-Dichloroethene	<0.0800	<0.317	0.0800	0.317	D	EPA-TO-15	08/24/2023	LB
Tetrachloroethene (PCE)	0.0399	0.271	0.0160	0.109	D	EPA-TO-15	08/24/2023	LB
trans-1,2-Dichloroethene	<0.240	<0.952	0.240	0.952	D	EPA-TO-15	08/24/2023	LB
Trichloroethene (TCE)	0.0735	0.395	0.0160	0.0860	D	EPA-TO-15	08/24/2023	LB
Vinyl chloride	<0.0160	<0.0409	0.0160	0.0409	D	EPA-TO-15	08/24/2023	LB
Surr: 4-Bromofluorobenzene	111 %Rec	--	70-130	--	D	EPA-TO-15	08/24/2023	LB





**Client:** Landau Associates  
**WorkOrder:** 2308254  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-IA9-20230817  
**Lab ID:** 2308254-002A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/17/2023  
**Date Received:** 8/17/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0240	<0.0952	0.0240	0.0952	D	EPA-TO-15	08/24/2023	LB
cis-1,2-Dichloroethene	<0.120	<0.476	0.120	0.476	D	EPA-TO-15	08/24/2023	LB
Tetrachloroethene (PCE)	0.0684	0.464	0.0240	0.163	DI	EPA-TO-15	08/24/2023	LB
trans-1,2-Dichloroethene	<0.360	<1.43	0.360	1.43	D	EPA-TO-15	08/24/2023	LB
Trichloroethene (TCE)	0.0979	0.526	0.0240	0.129	DI	EPA-TO-15	08/24/2023	LB
Vinyl chloride	<0.0240	<0.0613	0.0240	0.0613	D	EPA-TO-15	08/24/2023	LB
Surr: 4-Bromofluorobenzene	112 %Rec	--	70-130	--	D	EPA-TO-15	08/24/2023	LB

**NOTES:**

I - Internal standards were outside of acceptance criteria. Result is an estimate.



**Client:** Landau Associates  
**WorkOrder:** 2308254  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-IA1-20230817  
**Lab ID:** 2308254-003A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/17/2023  
**Date Received:** 8/17/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397	D	EPA-TO-15	08/24/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198	D	EPA-TO-15	08/24/2023	LB
Tetrachloroethene (PCE)	0.0474	0.321	0.0100	0.0678	D	EPA-TO-15	08/24/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595	D	EPA-TO-15	08/24/2023	LB
Trichloroethene (TCE)	0.0885	0.476	0.0100	0.0537	D	EPA-TO-15	08/24/2023	LB
Vinyl chloride	0.0235	0.0600	0.0100	0.0256	D	EPA-TO-15	08/24/2023	LB
Surr: 4-Bromofluorobenzene	114 %Rec	--	70-130	--	D	EPA-TO-15	08/24/2023	LB



**Client:** Landau Associates  
**WorkOrder:** 2308254  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815-OA1-20230817  
**Lab ID:** 2308254-004A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/17/2023  
**Date Received:** 8/17/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0120	<0.0476	0.0120	0.0476	D	EPA-TO-15	08/24/2023	LB
cis-1,2-Dichloroethene	<0.0600	<0.238	0.0600	0.238	D	EPA-TO-15	08/24/2023	LB
Tetrachloroethene (PCE)	0.0507	0.344	0.0120	0.0814	D	EPA-TO-15	08/24/2023	LB
trans-1,2-Dichloroethene	<0.180	<0.714	0.180	0.714	D	EPA-TO-15	08/24/2023	LB
Trichloroethene (TCE)	<0.0120	<0.0645	0.0120	0.0645	D	EPA-TO-15	08/24/2023	LB
Vinyl chloride	0.0298	0.0762	0.0120	0.0307	D	EPA-TO-15	08/24/2023	LB
Surr: 4-Bromofluorobenzene	112 %Rec	--	70-130	--	D	EPA-TO-15	08/24/2023	LB

**Work Order:** 2308254  
**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R86116</b>	SampType: <b>LCS</b>	Units: <b>ppbv</b>			Prep Date: <b>8/23/2023</b>			RunNo: <b>86116</b>			
Client ID: <b>LCSW</b>	Batch ID: <b>R86116</b>	Analysis Date: <b>8/23/2023</b>						SeqNo: <b>1797040</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.78	0.0100	2.000	0	89.1	70	130				
1,1-Dichloroethene (DCE)	1.87	0.0100	2.000	0	93.7	70	130				
trans-1,2-Dichloroethene	1.95	0.150	2.000	0	97.7	70	130				
cis-1,2-Dichloroethene	2.00	0.0500	2.000	0	100	70	130				
Trichloroethene (TCE)	1.80	0.0100	2.000	0	90.0	70	130				
Tetrachloroethene (PCE)	1.96	0.0100	2.000	0	97.9	70	130				
Surr: 4-Bromofluorobenzene	4.32		4.000		108	70	130				

Sample ID: <b>MB-R86116</b>	SampType: <b>MBLK</b>	Units: <b>ppbv</b>			Prep Date: <b>8/23/2023</b>				RunNo: <b>86116</b>		
Client ID: <b>MBLKW</b>	Batch ID: <b>R86116</b>	Analysis Date: <b>8/23/2023</b>							SeqNo: <b>1797041</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0100									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0100									
Surr: 4-Bromofluorobenzene	4.22		4.000		105	70	130				

Sample ID: <b>2308247-003AREP</b>	SampType: <b>REP</b>	Units: <b>ppbv</b>			Prep Date: <b>8/24/2023</b>				RunNo: <b>86116</b>		
Client ID: <b>BATCH</b>	Batch ID: <b>R86116</b>	Analysis Date: <b>8/24/2023</b>							SeqNo: <b>1797049</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
trans-1,2-Dichloroethene	0.677	0.600						0.7303	7.65	25	
cis-1,2-Dichloroethene	0.300	0.200						0.3074	2.34	25	
Trichloroethene (TCE)	ND	0.0400						0		25	
Tetrachloroethene (PCE)	0.814	0.0400						0.8796	7.72	25	
Surr: 4-Bromofluorobenzene	18.3		16.00		115	70	130		0		

**Work Order:** 2308254  
**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2308247-003AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>8/24/2023</b>			RunNo: <b>86116</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>R86116</b>					Analysis Date: <b>8/24/2023</b>			SeqNo: <b>1797049</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

## Sample Log-In Check List

Client Name: LA  
 Logged by: Clare Griggs

Work Order Number: 2308254  
 Date Received: 8/17/2023 4:20:00 PM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒  
 5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒  
 6. Sample(s) in proper container(s)? Yes ☒ No ☐  
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 8. Are samples properly preserved? Yes ☒ No ☐  
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 12. Does paperwork match bottle labels? Yes ☒ No ☐  
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 14. Is it clear what analyses were requested? Yes ☒ No ☐  
 15. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Air Chain of Custody Record & Laboratory Services Agreement

Date: 8/17/2023

Page: 1 of 2

Project Name: Capitol Industries - PT-5

Project No: 1933661.030.033

Location: Seattle, WA

Collected by:

Reports to (PM): Jennifer Wynn Koop; Sierra Mott

Email (PM): [disturbed.indian@icloud.com](mailto:disturbed.indian@icloud.com) jayn.koop@indian.icloud.com 5murf@indian.icloud.com

otherwise requested.	<input checked="" type="checkbox"/> OK to Dispose	<input type="checkbox"/> Hold (fees may apply)
----------------------	---	--

☒ OK to Dispose ☐ Hold (fees may apply)

Laboratory Project No (internal)

2308254

\*\*\* Only analyze for the following:

PCl<sub>2</sub>, TECl<sub>2</sub>, s, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 8

Client: Landau

Address: 2107 S C ST

City, State, Zip: Tacoma, WA 98402

Telephone: 253-579-7422

Fax: N/A

[illegible]

\* Matrix Codes:    AA = Ambient Air    OA = Outdoor Air    IA = Indoor Air    S = Subslab / Soil Gas    SVE = SVE    L = Landfill    D = Digester

•• Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube 18 = 18 Liter Bag

\*\*\* Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☒ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name \_\_\_\_\_

Date/Time

Received (Signature)

Print Name \_\_\_\_\_

Date/Time

*Refinanzierungsstruktur*

Print Name \_\_\_\_\_

Date/Time

Received (Signature)

Print Name: Flora

Date/Time 2/



**Fremont**  
*Analytical*  
An Alliance Technical Group Company

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: Capital Industries - PFS**  
**Work Order Number: 2308261**

August 25, 2023

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 3 sample(s) on 8/18/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**  
Data  
Sierra Mott

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)





**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS  
**Work Order:** 2308261

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308261-001	5815N-VP1-20230818	08/18/2023 8:21 AM	08/18/2023 9:43 AM
2308261-002	5815N-VP9-20230818	08/18/2023 9:10 AM	08/18/2023 9:43 AM
2308261-003	5815N-VP8-20230818	08/18/2023 8:50 AM	08/18/2023 9:43 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

---

### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates  
**WorkOrder:** 2308261  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-VP1-20230818  
**Lab ID:** 2308261-001A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/18/2023  
**Date Received:** 8/18/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	08/25/2023	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	08/25/2023	LB
Tetrachloroethene (PCE)	0.849	5.76	0.0400	0.271		EPA-TO-15	08/25/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	08/25/2023	LB
Trichloroethene (TCE)	58.8	316	0.0400	0.215		EPA-TO-15	08/25/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	08/25/2023	LB
Surr: 4-Bromofluorobenzene	107 %Rec	--	70-130	--		EPA-TO-15	08/25/2023	LB



**Client:** Landau Associates  
**WorkOrder:** 2308261  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-VP9-20230818  
**Lab ID:** 2308261-002A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/18/2023  
**Date Received:** 8/18/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	08/25/2023	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	08/25/2023	LB
Tetrachloroethene (PCE)	0.553	3.75	0.0400	0.271		EPA-TO-15	08/25/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	08/25/2023	LB
Trichloroethene (TCE)	33.5	180	0.0400	0.215		EPA-TO-15	08/25/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	08/25/2023	LB
Surr: 4-Bromofluorobenzene	107 %Rec	--	70-130	--		EPA-TO-15	08/25/2023	LB



**Client:** Landau Associates  
**WorkOrder:** 2308261  
**Project:** Capital Industries - PFS

**Client Sample ID:** 5815N-VP8-20230818  
**Lab ID:** 2308261-003A  
**Sample Type:** Summa Canister

**Date Sampled:** 8/18/2023  
**Date Received:** 8/18/2023

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	08/25/2023	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	08/25/2023	LB
Tetrachloroethene (PCE)	0.268	1.82	0.0400	0.271		EPA-TO-15	08/25/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	08/25/2023	LB
Trichloroethene (TCE)	6.13	33.0	0.0400	0.215		EPA-TO-15	08/25/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	08/25/2023	LB
Surr: 4-Bromofluorobenzene	108 %Rec	--	70-130	--		EPA-TO-15	08/25/2023	LB

**Work Order:** 2308261  
**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R86141</b>	SampType: <b>LCS</b>	Units: <b>ppbv</b>			Prep Date: <b>8/24/2023</b>			RunNo: <b>86141</b>			
Client ID: <b>LCSW</b>	Batch ID: <b>R86141</b>	Analysis Date: <b>8/24/2023</b>						SeqNo: <b>1797678</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	16.1	0.0100	20.00	0	80.5	70	130				
1,1-Dichloroethene (DCE)	18.8	0.0100	20.00	0	93.8	70	130				
trans-1,2-Dichloroethene	19.3	0.150	20.00	0	96.3	70	130				
cis-1,2-Dichloroethene	19.2	0.0500	20.00	0	96.2	70	130				
Trichloroethene (TCE)	18.8	0.0100	20.00	0	93.9	70	130				
Tetrachloroethene (PCE)	20.8	0.0100	20.00	0	104	70	130				
Surr: 4-Bromofluorobenzene	4.52		4.000		113	70	130				

Sample ID: <b>MB-R86141</b>	SampType: <b>MBLK</b>	Units: <b>ppbv</b>			Prep Date: <b>8/25/2023</b>				RunNo: <b>86141</b>			
Client ID: <b>MBLKW</b>	Batch ID: <b>R86141</b>					Analysis Date: <b>8/25/2023</b>				SeqNo: <b>1797679</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Vinyl chloride	ND	0.0100										
1,1-Dichloroethene (DCE)	ND	0.0100										
trans-1,2-Dichloroethene	ND	0.150										
cis-1,2-Dichloroethene	ND	0.0500										
Trichloroethene (TCE)	ND	0.0100										
Tetrachloroethene (PCE)	ND	0.0100										
Surr: 4-Bromofluorobenzene	4.30		4.000		107	70	130					

Sample ID: 2308261-001AREP		SampType: REP		Units: ppbv		Prep Date: 8/25/2023			RunNo: 86141		
Client ID: 5815N-VP1-20230818		Batch ID: R86141					Analysis Date: 8/25/2023			SeqNo: 1797681	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
trans-1,2-Dichloroethene	ND	0.600						0		25	
cis-1,2-Dichloroethene	ND	0.200						0		25	
Trichloroethene (TCE)	69.2	0.0400						58.84	16.2	25	
Tetrachloroethene (PCE)	0.979	0.0400						0.8488	14.2	25	
Surr: 4-Bromofluorobenzene	17.2		16.00		108	70	130		0		

**Work Order:** 2308261  
**CLIENT:** Landau Associates  
**Project:** Capital Industries - PFS

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2308261-001AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>8/25/2023</b>			RunNo: <b>86141</b>			
Client ID: <b>5815N-VP1-20230818</b>		Batch ID: <b>R86141</b>					Analysis Date: <b>8/25/2023</b>			SeqNo: <b>1797681</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	



Client Name: LA  
 Logged by: Clare Griggs

Work Order Number: 2308261  
 Date Received: 8/18/2023 9:43:00 AM

## Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

## Log In

3. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒  
 5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒  
 6. Sample(s) in proper container(s)? Yes ☒ No ☐  
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 8. Are samples properly preserved? Yes ☒ No ☐  
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 12. Does paperwork match bottle labels? Yes ☒ No ☐  
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 14. Is it clear what analyses were requested? Yes ☒ No ☐  
 15. Were all holding times able to be met? Yes ☒ No ☐

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

## Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

**Air Chain of Custody Record & Laboratory Services Agreement**

Date: 8/18/2023

Page: 2 of 2

Laboratory Project No (Internal): 2308261

Project Name: Capital Industries-PFS

Project No: 193001-030-033

Location: Seattle, WA

Collected by: JDB

Reports to (PM): Sam Foraynakop, 5:00pm MDT

Special Remarks:  
\*\*\* only analyze for the following:  
PCE; TCE; cis 1,2 DCE; trans 1,2 DCE;  
1,1 DCE; Vinyl chloride

Air samples are disposed of one week after report is submitted to client unless otherwise requested.

☒ OK to Dispose

☐ Hold (fees may apply)

City, State, Zip: Tacoma, WA, 98402

Telephone: 253-579-7933

Fax: N/A

Email (PM): dforaynakop@capitalindustries.com jforaynakop@capitalindustries.com

Sample Name	Canister / Flow Bag Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure ( <sup>o</sup> Hg)	Sample End Date & Time	Field Final Sample Pressure ( <sup>o</sup> Hg)	Analysis							Comments	Final Pressure ( <sup>o</sup> Hg)	
									Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod			VOCs 8260
1 S815N-VP2- 20230818	11412	S	1L	5MIN	8/18/23 0814	-30	8/18/23 0821	-3		X							Shop	-2
2 S815N-VP4- 20230818	11399	S	1L	5MIN	8/18/23 0903	-30	8/18/23 0910	-4		X							Swapping	-5
3 S815N-VP8- 20230818	4687	S	1L	5MIN	8/18/23 0843	-30	8/18/23 0850	-4		X							offsite	-4
4	4684		1L	5MIN														
5																		

\* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE L = Landfill D = Digester  
\*\* Container Codes: BV = 1 Liter Bottle Vac GL = GL Canister IL = 1L Canister CRL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag  
\*\*\* Select one: ☐ BTEXN & APH ☐ PCE & Breakdown ☒ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Turn-Around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day

specify



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: Capital Industries**

**Work Order Number: 2309212**

September 22, 2023

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 4 sample(s) on 9/19/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**  
Data  
Sierra Mott

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

---

**CLIENT:** Landau Associates  
**Project:** Capital Industries  
**Work Order:** 2309212

---

**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2309212-001	5815N-IA9-20230919	09/19/2023 7:39 AM	09/19/2023 3:27 PM
2309212-002	5815N-IA1-20230919	09/19/2023 7:35 AM	09/19/2023 3:27 PM
2309212-003	5815N-OA1-20230919	09/19/2023 7:31 AM	09/19/2023 3:27 PM
2309212-004	5815N-IA8-20230919	09/19/2023 7:43 AM	09/19/2023 3:27 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Landau Associates

**Project:** Capital Industries

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates

**WorkOrder:** 2309212

**Project:** Capital Industries

**Client Sample ID:** 5815N-IA9-20230919

**Date Sampled:** 9/19/2023

**Lab ID:** 2309212-001A

**Date Received:** 9/19/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397		EPA-TO-15	09/20/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198		EPA-TO-15	09/20/2023	LB
Tetrachloroethene (PCE)	0.0322	0.218	0.0100	0.0678		EPA-TO-15	09/20/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595		EPA-TO-15	09/20/2023	LB
Trichloroethene (TCE)	0.125	0.672	0.0100	0.0537		EPA-TO-15	09/20/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256		EPA-TO-15	09/20/2023	LB
Surr: 4-Bromofluorobenzene	103 %Rec	--	70-130	--		EPA-TO-15	09/20/2023	LB

**Client Sample ID:** 5815N-IA1-20230919

**Date Sampled:** 9/19/2023

**Lab ID:** 2309212-002A

**Date Received:** 9/19/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397		EPA-TO-15	09/20/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198		EPA-TO-15	09/20/2023	LB
Tetrachloroethene (PCE)	0.0338	0.229	0.0100	0.0678		EPA-TO-15	09/20/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595		EPA-TO-15	09/20/2023	LB
Trichloroethene (TCE)	0.0974	0.524	0.0100	0.0537		EPA-TO-15	09/20/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256		EPA-TO-15	09/20/2023	LB
Surr: 4-Bromofluorobenzene	99.1 %Rec	--	70-130	--		EPA-TO-15	09/20/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2309212

**Project:** Capital Industries

**Client Sample ID:** 5815N-OA1-20230919

**Date Sampled:** 9/19/2023

**Lab ID:** 2309212-003A

**Date Received:** 9/19/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397		EPA-TO-15	09/20/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198		EPA-TO-15	09/20/2023	LB
Tetrachloroethene (PCE)	0.0102	0.0692	0.0100	0.0678		EPA-TO-15	09/20/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595		EPA-TO-15	09/20/2023	LB
Trichloroethene (TCE)	<0.0100	<0.0537	0.0100	0.0537		EPA-TO-15	09/20/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256		EPA-TO-15	09/20/2023	LB
Surr: 4-Bromofluorobenzene	97.4 %Rec	--	70-130	--		EPA-TO-15	09/20/2023	LB

**Client Sample ID:** 5815N-IA8-20230919

**Date Sampled:** 9/19/2023

**Lab ID:** 2309212-004A

**Date Received:** 9/19/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397		EPA-TO-15	09/20/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198		EPA-TO-15	09/20/2023	LB
Tetrachloroethene (PCE)	0.0315	0.214	0.0100	0.0678		EPA-TO-15	09/20/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595		EPA-TO-15	09/20/2023	LB
Trichloroethene (TCE)	0.0961	0.517	0.0100	0.0537		EPA-TO-15	09/20/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256		EPA-TO-15	09/20/2023	LB
Surr: 4-Bromofluorobenzene	98.7 %Rec	--	70-130	--		EPA-TO-15	09/20/2023	LB



**Work Order:** 2309212  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R86612</b>	SampType: <b>LCS</b>	Units: <b>ppbv</b>			Prep Date: <b>9/19/2023</b>			RunNo: <b>86612</b>			
Client ID: <b>LCSS</b>	Batch ID: <b>R86612</b>				Analysis Date: <b>9/19/2023</b>			SeqNo: <b>1807112</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	2.00	0.0100	2.000	0	99.8	70	130				
1,1-Dichloroethene (DCE)	1.87	0.0100	2.000	0	93.5	70	130				
trans-1,2-Dichloroethene	1.85	0.150	2.000	0	92.7	70	130				
cis-1,2-Dichloroethene	1.89	0.0500	2.000	0	94.4	70	130				
Trichloroethene (TCE)	1.95	0.0100	2.000	0	97.7	70	130				
Tetrachloroethene (PCE)	1.94	0.0100	2.000	0	96.8	70	130				
Surr: 4-Bromofluorobenzene	4.16		4.000		104	70	130				

Sample ID: <b>MB-R86612</b>	SampType: <b>MBLK</b>	Units: <b>ppbv</b>			Prep Date: <b>9/19/2023</b>				RunNo: <b>86612</b>		
Client ID: <b>MBLKS</b>	Batch ID: <b>R86612</b>	Analysis Date: <b>9/19/2023</b>							SeqNo: <b>1807113</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0100									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0100									
Surr: 4-Bromofluorobenzene	3.74		4.000		93.4	70	130				

Sample ID: <b>2309180-004AREP</b>	SampType: <b>REP</b>	Units: <b>ppbv</b>			Prep Date: <b>9/19/2023</b>				RunNo: <b>86612</b>		
Client ID: <b>BATCH</b>	Batch ID: <b>R86612</b>	Analysis Date: <b>9/19/2023</b>							SeqNo: <b>1807115</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
trans-1,2-Dichloroethene	ND	0.600						0		25	
cis-1,2-Dichloroethene	ND	0.200						0		25	
Trichloroethene (TCE)	ND	0.0400						0		25	
Tetrachloroethene (PCE)	0.180	0.0400						0.1982	9.58	25	
Surr: 4-Bromofluorobenzene	15.4		16.00		96.5	70	130		0		I

**Work Order:** 2309212  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2309180-004AREP</b>	SampType: <b>REP</b>	Units: <b>ppbv</b>	Prep Date: <b>9/19/2023</b>	RunNo: <b>86612</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>R86612</b>	Analysis Date: <b>9/19/2023</b>	SeqNo: <b>1807115</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

## Sample Log-In Check List

Client Name: LA  
 Logged by: Morgan Wilson

Work Order Number: 2309212  
 Date Received: 9/19/2023 3:27:00 PM

### **Chain of Custody**

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### **Log In**

3. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒  
 5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒  
 6. Sample(s) in proper container(s)? Yes ☒ No ☐  
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 8. Are samples properly preserved? Yes ☒ No ☐  
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 12. Does paperwork match bottle labels? Yes ☒ No ☐  
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 14. Is it clear what analyses were requested? Yes ☒ No ☐  
 15. Were all holding times able to be met? Yes ☒ No ☐

### **Special Handling (if applicable)**

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:  Date:   
 By Whom:  Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
 Regarding:   
 Client Instructions:

17. Additional remarks:

### **Item Information**

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

**Air Chain of Custody Record & Laboratory Services Agreement**

Date: 4/19/2023

Page: 1 of 2

Laboratory Project No (Internal):

23092212

Special Remarks:

\*\*\* Only analyze for the following:  
PCE, TCE, cis 1,2-DCE, trans 1,2-DCE,  
1,1-DCE, vinyl chloride

Client: LANDAU

Address: 2107 S C St

City, State, Zip: Tacoma, WA, 98402

Telephone: 253-579-7922

Fax:

Project Name: Capital Industries

Project No: 1933001, 030-033

Location: Seattle, WA

Collected by: SOB

Reports to (PM): Senior WYKOP Sierra Malt

Email (PM): daniel@wykop.sierra.com wykop@industrial.com smalt@industrial.com

Air samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Sample Name	Canister / Flow Rag Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (in Hg)	Sample End Date & Time	Field Final Sample Pressure (in Hg)	Analysis							Comments	Final Pressure (in Hg)		
									Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod			VOCs 8260	GX/BTEX 8260
5815N-IA9- 20230919	13973 FR8-24	IA	6L	8HR 0739	9/19/23 <del>0745</del>	-30	9/19/23 1439	-4		X								Shipping	4
5815N-IA1- 20230919	17238 FR8-11	IA	6L	8HR	9/19/23 0735	-30	9/19/23 1505	-4		X								Ship	6
5815N-DA2- 20230919	34752 FR8-19	DA	6L	8HR	9/19/23 0731	-30	9/19/23 1441	-4		X								Outdoors	3
5815N-IA8- 20230919	10945 FV-1	IA	6L	8HR	9/19/23 0743	-30	9/19/23 1440	-4		X								Office	5
	15897		6L																

\* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE L = Landfill D = Digester

\*\* Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

\*\*\* Select one: ☐ BTEXN & APH ☒ PCE & Breakdown ☒ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time



**Fremont**  
*Analytical*  
An Alliance Technical Group Company

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: Capitol Industries**

**Work Order Number: 2309235**

September 27, 2023

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 3 sample(s) on 9/20/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**  
Data  
Sierra Mott

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Landau Associates  
**Project:** Capitol Industries  
**Work Order:** 2309235

---

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2309235-001	5815N-VP8-20230920	09/20/2023 10:00 AM	09/20/2023 11:18 AM
2309235-002	5815N-VP9-20230920	09/20/2023 10:21 AM	09/20/2023 11:18 AM
2309235-003	5815N-VP1-20230920	09/20/2023 10:30 AM	09/20/2023 11:18 AM

---

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Landau Associates

**Project:** Capitol Industries

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** Landau Associates

**WorkOrder:** 2309235

**Project:** Capitol Industries

**Client Sample ID:** 5815N-VP8-20230920

**Date Sampled:** 9/20/2023

**Lab ID:** 2309235-001A

**Date Received:** 9/20/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	09/22/2023	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	09/22/2023	LB
Tetrachloroethene (PCE)	0.135	0.914	0.0400	0.271		EPA-TO-15	09/22/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	09/22/2023	LB
Trichloroethene (TCE)	11.5	61.9	0.0400	0.215		EPA-TO-15	09/22/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	09/22/2023	LB
Surr: 4-Bromofluorobenzene	99.7 %Rec	--	70-130	--		EPA-TO-15	09/22/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2309235

**Project:** Capitol Industries

**Client Sample ID:** 5815N-VP9-20230920

**Date Sampled:** 9/20/2023

**Lab ID:** 2309235-002A

**Date Received:** 9/20/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	09/22/2023	LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	09/22/2023	LB
Tetrachloroethene (PCE)	0.409	2.77	0.0400	0.271		EPA-TO-15	09/22/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	09/22/2023	LB
Trichloroethene (TCE)	27.7	149	0.0400	0.215		EPA-TO-15	09/22/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	09/22/2023	LB
Surr: 4-Bromofluorobenzene	100 %Rec	--	70-130	--		EPA-TO-15	09/22/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2309235

**Project:** Capitol Industries

**Client Sample ID:** 5815N-VP1-20230920

**Date Sampled:** 9/20/2023

**Lab ID:** 2309235-003A

**Date Received:** 9/20/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	09/22/2023	LB
cis-1,2-Dichloroethene	0.604	2.40	0.200	0.793		EPA-TO-15	09/22/2023	LB
Tetrachloroethene (PCE)	14.4	97.5	0.0400	0.271		EPA-TO-15	09/22/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	09/22/2023	LB
Trichloroethene (TCE)	365	1,960	0.400	2.15		EPA-TO-15	09/22/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	09/22/2023	LB
Surr: 4-Bromofluorobenzene	98.3 %Rec	--	70-130	--		EPA-TO-15	09/22/2023	LB

**Work Order:** 2309235  
**CLIENT:** Landau Associates  
**Project:** Capitol Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R86752</b>	SampType: <b>LCS</b>	Units: <b>ppbv</b>				Prep Date: <b>9/21/2023</b>			RunNo: <b>86752</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>R86752</b>	Analysis Date: <b>9/21/2023</b>							SeqNo: <b>1810054</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	2.07	0.0100	2.000	0	104	70	130				
1,1-Dichloroethene (DCE)	1.91	0.0100	2.000	0	95.6	70	130				
trans-1,2-Dichloroethene	1.88	0.150	2.000	0	94.2	70	130				
cis-1,2-Dichloroethene	1.91	0.0500	2.000	0	95.7	70	130				
Trichloroethene (TCE)	1.89	0.0100	2.000	0	94.3	70	130				
Tetrachloroethene (PCE)	1.89	0.0100	2.000	0	94.3	70	130				
Surr: 4-Bromofluorobenzene	4.08		4.000		102	70	130				

Sample ID: <b>MB-R86752</b>	SampType: <b>MBLK</b>	Units: <b>ppbv</b>			Prep Date: <b>9/22/2023</b>				RunNo: <b>86752</b>		
Client ID: <b>MBLKW</b>	Batch ID: <b>R86752</b>	Analysis Date: <b>9/22/2023</b>							SeqNo: <b>1810055</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0100									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0100									
Surr: 4-Bromofluorobenzene	3.71		4.000		92.8	70	130				

Sample ID: 2309235-001AREP		SampType: REP		Units: ppbv		Prep Date: 9/22/2023			RunNo: 86752		
Client ID: 5815N-VP8-20230920		Batch ID: R86752					Analysis Date: 9/22/2023			SeqNo: 1810058	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	
trans-1,2-Dichloroethene	ND	0.600						0		25	
cis-1,2-Dichloroethene	ND	0.200						0		25	
Trichloroethene (TCE)	11.8	0.0400						11.53	2.70	25	
Tetrachloroethene (PCE)	0.137	0.0400						0.1348	1.91	25	
Surr: 4-Bromofluorobenzene	15.8		16.00		98.6	70	130		0		

**Work Order:** 2309235  
**CLIENT:** Landau Associates  
**Project:** Capitol Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2309235-001AREP</b>	SampType: <b>REP</b>	Units: <b>ppbv</b>	Prep Date: <b>9/22/2023</b>	RunNo: <b>86752</b>							
Client ID: <b>5815N-VP8-20230920</b>	Batch ID: <b>R86752</b>	Analysis Date: <b>9/22/2023</b>	SeqNo: <b>1810058</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

## Sample Log-In Check List

Client Name: LA  
 Logged by: Brianna Barnes

Work Order Number: 2309235  
 Date Received: 9/20/2023 11:18:00 AM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒  
 5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒  
 6. Sample(s) in proper container(s)? Yes ☒ No ☐  
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 8. Are samples properly preserved? Yes ☒ No ☐  
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 12. Does paperwork match bottle labels? Yes ☒ No ☐  
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 14. Is it clear what analyses were requested? Yes ☒ No ☐  
 15. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:  Date:   
 By Whom:  Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
 Regarding:   
 Client Instructions:

17. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
130 2nd Ave South  
Edmonds, Washington 98020

**RE: Capital Industries**

**Work Order Number: 2312555**

January 04, 2024

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 4 sample(s) on 12/27/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**  
Sierra Mott

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

**www.fremontanalytical.com**



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**CLIENT:** Landau Associates  
**Project:** Capital Industries  
**Work Order:** 2312555

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**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2312555-001	5815N-IA9-20231227	12/27/2023 8:19 AM	12/27/2023 3:51 PM
2312555-002	5815N-IA1-20231227	12/27/2023 8:20 AM	12/27/2023 3:51 PM
2312555-003	5815N-OA1-20231227	12/27/2023 8:21 AM	12/27/2023 3:51 PM
2312555-004	5815N-IA8-20231227	12/27/2023 8:18 AM	12/27/2023 3:51 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Landau Associates

**Project:** Capital Industries

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates

**WorkOrder:** 2312555

**Project:** Capital Industries

**Client Sample ID:** 5815N-IA9-20231227

**Date Sampled:** 12/27/2023

**Lab ID:** 2312555-001A

**Date Received:** 12/27/2023

**Sample Type:** Summa Canister

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
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Volatile Organic Compounds by EPA Method TO-15

	(ppbv)	(ug/m <sup>3</sup> )	(ppbv)	(ug/m <sup>3</sup> )			
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397	EPA-TO-15	12/29/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198	EPA-TO-15	12/29/2023	LB
Tetrachloroethene (PCE)	0.0360	0.245	0.0100	0.0678	EPA-TO-15	12/29/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595	EPA-TO-15	12/29/2023	LB
Trichloroethene (TCE)	0.0345	0.185	0.0100	0.0537	EPA-TO-15	12/29/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256	EPA-TO-15	12/29/2023	LB
Surr: 4-Bromofluorobenzene	104 %Rec	--	70-130	--	EPA-TO-15	12/29/2023	LB

**Client Sample ID:** 5815N-IA1-20231227

**Date Sampled:** 12/27/2023

**Lab ID:** 2312555-002A

**Date Received:** 12/27/2023

**Sample Type:** Summa Canister

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
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Volatile Organic Compounds by EPA Method TO-15

	(ppbv)	(ug/m <sup>3</sup> )	(ppbv)	(ug/m <sup>3</sup> )			
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397	EPA-TO-15	12/29/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198	EPA-TO-15	12/29/2023	LB
Tetrachloroethene (PCE)	0.0313	0.212	0.0100	0.0678	EPA-TO-15	12/29/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595	EPA-TO-15	12/29/2023	LB
Trichloroethene (TCE)	0.0330	0.177	0.0100	0.0537	EPA-TO-15	12/29/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256	EPA-TO-15	12/29/2023	LB
Surr: 4-Bromofluorobenzene	104 %Rec	--	70-130	--	EPA-TO-15	12/29/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2312555

**Project:** Capital Industries

**Client Sample ID:** 5815N-OA1-20231227

**Date Sampled:** 12/27/2023

**Lab ID:** 2312555-003A

**Date Received:** 12/27/2023

**Sample Type:** Summa Canister

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
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Volatile Organic Compounds by EPA Method TO-15

	(ppbv)	(ug/m <sup>3</sup> )	(ppbv)	(ug/m <sup>3</sup> )			
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397	EPA-TO-15	12/30/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198	EPA-TO-15	12/30/2023	LB
Tetrachloroethene (PCE)	<0.0100	<0.0678	0.0100	0.0678	EPA-TO-15	12/30/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595	EPA-TO-15	12/30/2023	LB
Trichloroethene (TCE)	<0.0100	<0.0537	0.0100	0.0537	EPA-TO-15	12/30/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256	EPA-TO-15	12/30/2023	LB
Surr: 4-Bromofluorobenzene	102 %Rec	--	70-130	--	EPA-TO-15	12/30/2023	LB

**Client Sample ID:** 5815N-IA8-20231227

**Date Sampled:** 12/27/2023

**Lab ID:** 2312555-004A

**Date Received:** 12/27/2023

**Sample Type:** Summa Canister

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
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Volatile Organic Compounds by EPA Method TO-15

	(ppbv)	(ug/m <sup>3</sup> )	(ppbv)	(ug/m <sup>3</sup> )			
1,1-Dichloroethene (DCE)	<0.0100	<0.0397	0.0100	0.0397	EPA-TO-15	12/30/2023	LB
cis-1,2-Dichloroethene	<0.0500	<0.198	0.0500	0.198	EPA-TO-15	12/30/2023	LB
Tetrachloroethene (PCE)	0.0381	0.258	0.0100	0.0678	EPA-TO-15	12/30/2023	LB
trans-1,2-Dichloroethene	<0.150	<0.595	0.150	0.595	EPA-TO-15	12/30/2023	LB
Trichloroethene (TCE)	0.0355	0.191	0.0100	0.0537	EPA-TO-15	12/30/2023	LB
Vinyl chloride	<0.0100	<0.0256	0.0100	0.0256	EPA-TO-15	12/30/2023	LB
Surr: 4-Bromofluorobenzene	109 %Rec	--	70-130	--	EPA-TO-15	12/30/2023	LB

**Work Order:** 2312555  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R88683</b>		SampType: <b>LCS</b>		Units: <b>ppbv</b>		Prep Date: <b>12/29/2023</b>			RunNo: <b>88683</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>R88683</b>					Analysis Date: <b>12/29/2023</b>			SeqNo: <b>1852539</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.96	0.0100	2.000	0	97.9	70	130				
1,1-Dichloroethene (DCE)	1.87	0.0100	2.000	0	93.5	70	130				
trans-1,2-Dichloroethene	1.93	0.150	2.000	0	96.5	70	130				
cis-1,2-Dichloroethene	1.81	0.0500	2.000	0	90.7	70	130				
Trichloroethene (TCE)	1.89	0.0100	2.000	0	94.3	70	130				
Tetrachloroethene (PCE)	1.87	0.0100	2.000	0	93.3	70	130				
Surr: 4-Bromofluorobenzene	4.15		4.000		104	70	130				

Sample ID: <b>MB-R88683</b>		SampType: <b>MBLK</b>		Units: <b>ppbv</b>		Prep Date: <b>12/29/2023</b>			RunNo: <b>88683</b>		
Client ID: <b>MBLKW</b>		Batch ID: <b>R88683</b>					Analysis Date: <b>12/29/2023</b>			SeqNo: <b>1852540</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0100									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0100									
Surr: 4-Bromofluorobenzene	3.77		4.000		94.1	70	130				

Sample ID: <b>2312530-001AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>12/30/2023</b>			RunNo: <b>88683</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>R88683</b>					Analysis Date: <b>12/30/2023</b>			SeqNo: <b>1852546</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	I
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	I
trans-1,2-Dichloroethene	ND	0.600						0		25	I
cis-1,2-Dichloroethene	ND	0.200						0		25	I
Trichloroethene (TCE)	ND	0.0400						0		25	I
Tetrachloroethene (PCE)	0.946	0.0400						0.9545	0.939	25	I
Surr: 4-Bromofluorobenzene	16.3		16.00		102	70	130		0		I

**Work Order:** 2312555  
**CLIENT:** Landau Associates  
**Project:** Capital Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2312530-001AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>12/30/2023</b>		RunNo: <b>88683</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>R88683</b>				Analysis Date: <b>12/30/2023</b>		SeqNo: <b>1852546</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

#### NOTES:

I - Internal standards were outside of acceptance criteria. Re-analysis and/or matrix spike samples yielded the same result indicating a possible matrix effect.

## Sample Log-In Check List

Client Name: LA

Work Order Number: 2312555

Logged by: Morgan Wilson

Date Received: 12/27/2023 3:51:00 PM

### **Chain of Custody**

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

### **Log In**

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### **Special Handling (if applicable)**

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### **Item Information**

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





# Fremont

ANALYTICAL

3600 Fremont Ave. N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Air Chain of Custody Record & Laboratory Services Agreement

Date: 12/21/2023

Page: 1 of 2

Project Name: Capt 1 Industries

Project No: 1933061-030-033

Location: Seattle, WA

Collected by: JDB

Reports to (PM): Sonja Wynn King, Sierra Mott

Email (PM): dakt@landauinc.com, jking@landauinc.com, smott@landauinc.com

Laboratory Project No (Internal): 2312555

Special Remarks:

\*\*\* only analyze for the following:  
PCE, TCE, cis 1,2 DCE, trans 1,2 DCE,  
1,1 DCE, vinyl chloride

Air samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Fax: N/A

City, State, Zip: Tacoma, WA, 98402

Telephone: 253-579-7422

Client: LANDAU

Address: 2101 S C St

Collected by: JDB

Reports to (PM): Sonja Wynn King, Sierra Mott

Email (PM): dakt@landauinc.com, jking@landauinc.com, smott@landauinc.com

Laboratory Project No (Internal): 2312555

Special Remarks:

\*\*\* only analyze for the following:  
PCE, TCE, cis 1,2 DCE, trans 1,2 DCE,  
1,1 DCE, vinyl chloride

Air samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Sample Name	Canister / Flow Reg Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure (° Hg)	Sample End Date & Time	Field Final Sample Pressure (° Hg)	Analysis								Comments	Final Pressure (°Hg)											
									Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260			GX/BTEX 8260										
1 5815N-IA9- 20231227	13968	IA	6L	8HR	12/21/23 0819	-30	12/21/23 1510	-2		X									Shipping	2									
2 5815N-IA1- 20231227	17640	IA	6L	8HR	12/21/23 0820	-30	12/21/23 1527	-5		X									Shop	5									
3 5815N-OA1- 20231227	15421	OA	6L	8HR	12/21/23 0821	-30	12/21/23 1511	-2		X									Initial on canister -30 on reg -18 outdoors	2									
4 5815N-IA8- 20231227	17649	IA	6L	8HR	12/21/23 0818	-30	12/21/23 1521	-4		X									Office	4									
5	13969		6L																										
* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE L = Landfill D = Digester										Turn-Around Time:																			
** Container Codes: BV = 1 Liter Bottle Vac GL = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag										<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Next Day																			
*** Select one: <input type="checkbox"/> BTEXN & APH <input checked="" type="checkbox"/> PCE & Breakdown <input checked="" type="checkbox"/> Other, specify in comments										<input type="checkbox"/> 3 Day <input type="checkbox"/> Same Day																			
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.																				<input type="checkbox"/> 2 Day <input type="checkbox"/> specify									
Reinquished (Signature)					Print Name					Date/Time					Received (Signature)					Print Name					Date/Time				
x					Sonja Wynn King					12/21/23 1551					x					V. Carter					12/27/23				
Reinquished (Signature)					Print Name					Date/Time					Received (Signature)					Print Name					Date/Time				
x															x														



**Fremont**  
*Analytical*  
An Alliance Technical Group Company

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Landau Associates**

Jennifer Wynkoop  
155 NE 100th St., Ste 032  
Seattle, WA 98125

**RE: LTH Industries**

**Work Order Number: 2312566**

January 05, 2024

**Attention Jennifer Wynkoop:**

Fremont Analytical, Inc. received 3 sample(s) on 12/28/2023 for the analyses presented in the following report.

***Volatile Organic Compounds by EPA Method TO-15***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

**CC:**

Data  
Sierra Mott

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

**[www.fremontanalytical.com](http://www.fremontanalytical.com)**

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**CLIENT:** Landau Associates  
**Project:** LTH Industries  
**Work Order:** 2312566

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**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2312566-001	5815N-VP1-20231228	12/28/2023 10:36 AM	12/28/2023 11:00 AM
2312566-002	5815N-VP8-20231228	12/28/2023 10:11 AM	12/28/2023 11:00 AM
2312566-003	5815N-VP9-20231228	12/28/2023 10:22 AM	12/28/2023 11:00 AM

---

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Landau Associates

**Project:** LTH Industries

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** Landau Associates

**WorkOrder:** 2312566

**Project:** LTH Industries

**Client Sample ID:** 5815N-VP1-20231228

**Date Sampled:** 12/28/2023

**Lab ID:** 2312566-001A

**Date Received:** 12/28/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	12/30/2023	LB
cis-1,2-Dichloroethene	0.758	3.00	0.200	0.793		EPA-TO-15	12/30/2023	LB
Tetrachloroethene (PCE)	159	1,080	0.400	2.71		EPA-TO-15	12/30/2023	LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	12/30/2023	LB
Trichloroethene (TCE)	1,140	6,120	0.400	2.15	E	EPA-TO-15	12/30/2023	LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	12/30/2023	LB
Surr: 4-Bromofluorobenzene	106 %Rec	--	70-130	--		EPA-TO-15	12/30/2023	LB



**Client:** Landau Associates

**WorkOrder:** 2312566

**Project:** LTH Industries

**Client Sample ID:** 5815N-VP8-20231228

**Date Sampled:** 12/28/2023

**Lab ID:** 2312566-002A

**Date Received:** 12/28/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
<u>Volatile Organic Compounds by EPA Method TO-15</u>							
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)			
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	12/30/2023 LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	12/30/2023 LB
Tetrachloroethene (PCE)	7.43	50.4	0.0400	0.271		EPA-TO-15	12/30/2023 LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	12/30/2023 LB
Trichloroethene (TCE)	63.0	338	0.0400	0.215		EPA-TO-15	12/30/2023 LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	12/30/2023 LB
Surr: 4-Bromofluorobenzene	102 %Rec	--	70-130	--		EPA-TO-15	12/30/2023 LB



**Client:** Landau Associates

**WorkOrder:** 2312566

**Project:** LTH Industries

**Client Sample ID:** 5815N-VP9-20231228

**Date Sampled:** 12/28/2023

**Lab ID:** 2312566-003A

**Date Received:** 12/28/2023

**Sample Type:** Summa Canister

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst
<u>Volatile Organic Compounds by EPA Method TO-15</u>							
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)			
1,1-Dichloroethene (DCE)	<0.0400	<0.159	0.0400	0.159		EPA-TO-15	12/30/2023 LB
cis-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		EPA-TO-15	12/30/2023 LB
Tetrachloroethene (PCE)	7.79	52.9	0.0400	0.271		EPA-TO-15	12/30/2023 LB
trans-1,2-Dichloroethene	<0.600	<2.38	0.600	2.38		EPA-TO-15	12/30/2023 LB
Trichloroethene (TCE)	75.1	403	0.0400	0.215		EPA-TO-15	12/30/2023 LB
Vinyl chloride	<0.0400	<0.102	0.0400	0.102		EPA-TO-15	12/30/2023 LB
Surr: 4-Bromofluorobenzene	101 %Rec	--	70-130	--		EPA-TO-15	12/30/2023 LB



**Work Order:** 2312566  
**CLIENT:** Landau Associates  
**Project:** LTH Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>LCS-R88683</b>	SampType: <b>LCS</b>	Units: <b>ppbv</b>			Prep Date: <b>12/29/2023</b>			RunNo: <b>88683</b>			
Client ID: <b>LCSW</b>	Batch ID: <b>R88683</b>	Analysis Date: <b>12/29/2023</b>						SeqNo: <b>1852539</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.96	0.0100	2.000	0	97.9	70	130				
1,1-Dichloroethene (DCE)	1.87	0.0100	2.000	0	93.5	70	130				
trans-1,2-Dichloroethene	1.93	0.150	2.000	0	96.5	70	130				
cis-1,2-Dichloroethene	1.81	0.0500	2.000	0	90.7	70	130				
Trichloroethene (TCE)	1.89	0.0100	2.000	0	94.3	70	130				
Tetrachloroethene (PCE)	1.87	0.0100	2.000	0	93.3	70	130				
Surr: 4-Bromofluorobenzene	4.15		4.000		104	70	130				

Sample ID: <b>MB-R88683</b>	SampType: <b>MBLK</b>	Units: <b>ppbv</b>			Prep Date: <b>12/29/2023</b>				RunNo: <b>88683</b>		
Client ID: <b>MBLKW</b>	Batch ID: <b>R88683</b>	Analysis Date: <b>12/29/2023</b>							SeqNo: <b>1852540</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0100									
1,1-Dichloroethene (DCE)	ND	0.0100									
trans-1,2-Dichloroethene	ND	0.150									
cis-1,2-Dichloroethene	ND	0.0500									
Trichloroethene (TCE)	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0100									
Surr: 4-Bromofluorobenzene	3.77		4.000		94.1	70	130				

Sample ID: <b>2312530-001AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>12/30/2023</b>			RunNo: <b>88683</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>R88683</b>					Analysis Date: <b>12/30/2023</b>			SeqNo: <b>1852546</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0400						0		25	I
1,1-Dichloroethene (DCE)	ND	0.0400						0		25	I
trans-1,2-Dichloroethene	ND	0.600						0		25	I
cis-1,2-Dichloroethene	ND	0.200						0		25	I
Trichloroethene (TCE)	ND	0.0400						0		25	I
Tetrachloroethene (PCE)	0.946	0.0400						0.9545	0.939	25	I
Surr: 4-Bromofluorobenzene	16.3		16.00		102	70	130		0		I

**Work Order:** 2312566  
**CLIENT:** Landau Associates  
**Project:** LTH Industries

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method TO-15

Sample ID: <b>2312530-001AREP</b>		SampType: <b>REP</b>		Units: <b>ppbv</b>		Prep Date: <b>12/30/2023</b>		RunNo: <b>88683</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>R88683</b>				Analysis Date: <b>12/30/2023</b>		SeqNo: <b>1852546</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

#### NOTES:

I - Internal standards were outside of acceptance criteria. Re-analysis and/or matrix spike samples yielded the same result indicating a possible matrix effect.

## Sample Log-In Check List

Client Name: LA

Work Order Number: 2312566

Logged by: Morgan Wilson

Date Received: 12/28/2023 11:00:00 AM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☐ No ☐ NA ☒
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



**Fremont**  
Analytical

3600 Fremont Ave N  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Air Chain of Custody Record & Laboratory Services Agreement

Date: 12/28/2023

Page: 2 of 2

Project Name: ~~Seaford~~ Leif Hill Industries

Project No: 1933001 030.033

Location: Seaford, WA

Collected by: JDB

Reports to (PM): Seaford Property Services, Inc.

Email (PM): ~~seaford@seafordproperty.com~~ seaford@leifhillindustries.com

Laboratory Project No (Internal): 2312566

Special Remarks:

\*\*\* Only analyze for the following:  
PCE, TCE, 1,2-DCE, 1,1-DCE, 1,1-DCE, 1,1-DCE

Air samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Fax: N/A

City, State, Zip: Tacoma, WA, 98402

Address: 2107 S 6th

Client: LANDAU

Sample Name	Canister / Flow Bag Serial #	Sample Type (Matrix) *	Container Type **	Expected Fill Time / Flow Rate	Sample Start Date & Time	Field Initial Sample Pressure ("Hg)	Sample End Date & Time	Field Final Sample Pressure ("Hg)	Full list VOCs TO15	Select VOCs TO15 ***	APH TO15	Siloxanes TO15	Sulfur TO15	Major Gases 3C	Helium 3C Mod	VOCs 8260	GX/BTEX 8260	Comments	Final Pressure (Tg)
1 S815N-VF1-20231228	10376	S	1L	5 MIN	12/28/23 1036	-30	12/28/23 1042	-4	X									Shop	4
2 S815N-VF8-20231228	11404	S	1L	5 MIN	12/28/23 1011	-30	12/28/23 1016	-3	X									Office	3
3 S815N-VF9-20231228	11019	S	1L	5 MIN	12/28/23 1022	-30	12/28/23 1028	-3	X									Shipping	3
4	5024		1L																1
5																			

\* Matrix Codes: AA = Ambient Air OA = Outdoor Air IA = Indoor Air S = Subslab / Soil Gas SVE = SVE L = Landfill D = Digester  
\*\* Container Codes: BV = 1 Liter Bottle Vac GL = 6L Canister IL = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

\*\*\* Select one: ☐ BTEXN & APH ☒ PCE & Breakdown ☒ Other, specify in comments

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_