



**Naval Facilities Engineering Systems Command Southwest  
BRAC PMO West  
San Diego, CA**

**AIR MONITORING SUMMARY REPORT 10 FOR  
PARCEL C  
RADIOLOGICAL CONFIRMATION SAMPLING AND  
SURVEY**

**HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO,  
CALIFORNIA**

**December 5<sup>th</sup>, 2022 through October 19<sup>th</sup>, 2023**

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**DCN: GESL-0005-5305-0083**

**Prepared for:**

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## Acronyms and Abbreviations

AMSR .....	<i>Air Monitoring Summary Report</i>
ASRC .....	<i>Artic Slope Regional Corporation</i>
Cal/OSHA .....	<i>California Occupational Safety and Health Administration</i>
Cfm .....	<i>cubic feet per minute</i>
CFR .....	<i>Code of Federal Regulations</i>
CTO .....	<i>Contract Task Order</i>
DMAMP .....	<i>Dust Management and Air Monitoring Plan</i>
EPA .....	<i>United States Environmental Protection Agency</i>
fibers/cm3 .....	<i>fibers per cubic centimeter</i>
Gilbane .....	<i>Gilbane Federal</i>
HPNS .....	<i>Hunters Point Naval Shipyard</i>
L/min .....	<i>liters per minute</i>
mg/m3 .....	<i>milligrams per cubic meter</i>
Navy .....	<i>U.S. Department of the Navy</i>
NIOSH .....	<i>National Institute for Occupational Safety and Health</i>
PEL .....	<i>permissible exposure limit</i>
PM10 .....	<i>particulate matter less than 10 microns in diameter</i>
TSP .....	<i>total suspended particulates</i>
TWA .....	<i>time-weighted average</i>
$\mu\text{Ci/mL}$ .....	<i>microcuries per milliliter</i>
$\mu\text{g/m}3$ .....	<i>micrograms per cubic meter</i>
WP .....	<i>work plan</i>

## 1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by GES as requested by the United States Department of the Navy (Navy) under Radiological Environmental Multiple Award Contract N62473-17-D-0005, Contract Task Order (CTO) N6247318F5305. GES is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Management and Air Monitoring Plan (DMAMP), included as Appendix E to *Final Work Plan Parcel C Removal Site Evaluation, Hunters Point Naval Shipyard, San Francisco, California* (WP; Gilbane, 2022). The DMAMP describes the procedures that minimize dust during work activities and requires air monitoring to ensure these procedures are effective. The methods and procedures detailed in the DMAMP help to prevent exposure of residents and construction crews to potential airborne chemicals of concern, and dust from the work area.

This summary report describes the following:

- Where and how air monitoring samples were collected.
- What test methods were used to analyze air monitoring samples.
- How air monitoring data were evaluated.

This AMSR summarizes the air monitoring activities conducted by GES at HPNS Parcel C from December 5<sup>th</sup>, 2022 to October 19<sup>th</sup>, 2023 and compares the results with the established action levels presented in the DMAMP (Appendix E of the WP [Gilbane, 2022]).

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## 2.0 Monitoring Site Locations

Air monitoring stations were deployed at one upwind and downwind location from the work area whenever active soil handling operations were in progress. Additional radiological air monitors may be placed within the daily work areas to monitor for worker health and safety. Based on past meteorological data, the prevalent wind direction at HPNS was from the west or west-southwest. The locations of Parcel C air monitoring stations are presented on **Figure 2-1**.

Air monitoring was performed to estimate and assess the impact of field activities. The locations of air monitoring stations were determined based on the prevailing wind direction and were modified as needed for accessibility and worker safety considerations. Wind direction was monitored daily using a windsock and confirmed with the prevalent wind direction recorded for the APTIM HPNS - KCASANFR1504 or Bayview Manor - KCASANFR1775 or Bayview – KCASANFR1508 published at Weather Underground ([www.wunderground.com](http://www.wunderground.com)).

Upwind/downwind station designations were assigned based on the prevalent wind direction. Atmospheric parameters were checked daily at [www.wunderground.com](http://www.wunderground.com) (see **Attachment 1**). Monitoring stations remained stationary while sampling was conducted. Each monitoring station included four different monitoring systems:

1. Asbestos
2. Particulate matter less than 10 microns in diameter (PM10)
3. Total suspended particulates (TSP) and Metals (Lead and Manganese)
4. Radionuclides

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## 3.0 Analytical Methods

### 3.1 Asbestos

Air samples were sampled and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7400, from the NIOSH Manual of Analytical Methods (NIOSH, 1994). Method 7400 requires that samples be collected on three-piece cellulose ester filters fitted with conductive cowlings at a sampling rate of between 0.5 liters per minute (L/min) and 16 L/min. Each sample was collected over the course of a period not to exceed 25 hours and submitted to A&B Laboratories of Houston, TX for analysis. Asbestos results were reviewed for anomalies and compliance with the action levels listed below.

### 3.2 PM10

Filter-based PM10 data are collected to ensure the protection of public health and safety during construction operations. Filter-based PM10 data are generated by sampling with calibrated air monitoring equipment that are operated continuously over the course of a period not to exceed 25 hours in accordance with the U.S. Environmental Protection Agency (EPA) reference sampling method for PM10 as described in Title 40 Code of Federal Regulations (CFR), Part 50, Subpart J (EPA, 1999a). During the sampling, measurements are taken to precisely calculate the volume of air that has passed through the filter media sample. The period sampled is dependent on the duration of the work activity. The sample is then shipped to Eurofins, West Sacramento, CA or Eurofins Analytics, Ashland, VA for analysis. The concentration is gravimetrically determined. The sample results are reviewed for field and laboratory anomalies to provide confidence in the data and compared to air quality criteria to ensure compliance with the action levels listed below. In this way the precise amount of PM10 present in each cubic meter of air is determined.

### 3.3 TSP, Lead and Manganese

TSP samples were collected with a high-volume (39 to 60 cubic feet per minute [cfm]) air sampler in accordance with EPA's reference sampling method for TSP, described in 40 CFR 50, Subpart B. Each sample was collected on a filter over the course of a period not to exceed 25 hours (depending on the duration of the work activity). The sample is then shipped to Eurofins, West Sacramento, CA or Eurofins Analytics, Ashland, VA for analysis. The filter was then weighed to determine the amount of TSP collected. The resulting concentration was compared to the HPNS Basewide level listed below to minimize permissible dust releases from the site. Once the TSP concentration was gravimetrically determined, the filter was analyzed for lead and manganese in accordance with EPA Method 6010B (equivalent to IO-3.4 in the Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air [EPA, 1999b]).

### **3.4 Radionuclides of Concern**

Radiological air samples were collected on filter media with a LV-1 low-volume air sampler. The air filter concentration is counted onsite following a decay period and are compared with public air concentration limits published in 10 CFR Part 20. Radiological air sampling methods and procedures are detailed in Gilbane Radiological Procedure PR-RP-150 *Radiological Survey and Sampling* (Gilbane, 2019).

Perimeter samples for ROCs were analyzed at ARS Aleut Analytical, of Port Allen, LA by the radiological methods listed below.

- Gamma Spectroscopy by EPA Method 901.1
- Alpha Spectroscopy/Eichrom Resin Separation by HASL 300 Pu-02RC and Eichrom ACW10
- Gas Flow Proportional Counting/Eichrom Resin Separation by SRW01.

The calculated airborne concentration in microcuries per filter was then compared to the effluent concentration limit specified in Table 2 of Appendix B to 10 CFR 20. The effluent concentration of a given radionuclide is the minimum concentration in air which, if inhaled continuously over the course of a year, results in an exposure equal to the annual regulatory limit specified in 10 CFR 20.1302. The threshold for radiological effluent concentration in air samples is 10 percent of the effluent concentration, which ensures work practices are evaluated and modified as necessary to ensure the limit is not reached.

The equipment specifications and sampling procedures have complied with the specifications provided in the regulations for the sampler, filter media, accuracy, calibration, and quality assurance.

## 4.0 Air Monitoring Data Interpretation and Action Levels

To facilitate the comparison to project action levels, the delta between the upwind and downwind PM10 and TSP analytical results was calculated for detected values.

Calculated negative values indicating that the upwind concentration was greater than the downwind concentration and non-detected values where no delta was calculated, are interpreted as acceptable.

The resulting deltas for PM10 and TSP and analytical data from air monitoring metals and radiological samples were compared with the threshold criteria listed in **Table 4-1** reproduced from Table 1; and radionuclide activities were compared to the airborne concentration action levels listed in Table 2 of the approved DMAMP (Appendix E of the WP [Gilbane, 2022]. The PM10 delta was additionally compared to the criterion taken from the *Final Basewide Dust Control Plan, Revision 1, Hunters Point Shipyard, San Francisco, California* (Tetra Tech EC, 2010) of 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

**Table 4-1: Air Monitoring Threshold Criteria**

Test Parameter	Threshold Criteria	Threshold Criteria Reference
Asbestos	0.1 fibers/cm <sup>3</sup>	Cal/OSHA PEL (on-site workers)
PM10 <sup>a</sup>	50 $\mu\text{g}/\text{m}^3$	DTSC HERO developed action level (residents and public receptors) <sup>a</sup>
	5,000 $\mu\text{g}/\text{m}^3$	Cal/OSHA PEL (on-site workers) <sup>b</sup>
TSP	0.5 mg/m <sup>3</sup>	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Lead	0.050 mg/m <sup>3</sup>	Cal/OSHA PEL (on-site workers)
Manganese	0.200 mg/m <sup>3</sup>	Cal/OSHA PEL (on-site workers) 10 CFR, Part 20, Appendix B, Table 2 Column 1 adjusted from 50 mrem per year to maximum annual exposure of 10 mrem per year at the receptor (public receptor) <sup>c</sup>
Cesium-137	4.00E-11 $\mu\text{Ci}/\text{mL}$	
Plutonium-239	4.00E-15 $\mu\text{Ci}/\text{mL}$	
Radium-226	1.80E-13 $\mu\text{Ci}/\text{mL}$	
Strontium-90	1.20E-12 $\mu\text{Ci}/\text{mL}$	
Cobalt-60	1.00E-11 $\mu\text{Ci}/\text{mL}$	
Thorium-232	1.20E-15 $\mu\text{Ci}/\text{mL}$	

### Notes:

<sup>a</sup> = The DTSC HERO action level is based on the CSAAQS. The CSAAQS is designed to protect the general public from airborne particulates generated in the urban, suburban, and rural environments. The CSAAQS is not meant to be applied to general project-specific construction actions and related air quality. Rather, the standard is used to attain city- or regional-wide ambient air quality goals for the benefit of the general public. The current CSAAQS for PM10 is 50  $\mu\text{g}/\text{m}^3$  average per 24-hour day. The City and County of San Francisco is currently a nonattainment area for the CSAAQS for PM10.

<sup>b</sup> = The Cal/OSHA PEL for particulates not otherwise regulated (respiratory) is used for PM10 comparison.

<sup>c</sup> = Results may be evaluated using 40 CFR Appendix E to Part 61 to demonstrate compliance with the National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

$\mu\text{Ci}/\text{mL}$  microcuries per milliliter

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

Cal/OSHA = California Division of Occupational Safety and Health Administration

DTSC HERO = California Department of Toxic Substances Control, Human and Ecological Risk Office

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**4.0 Air Monitoring Action Levels**

fibers/cm<sup>3</sup> = fibers per cubic centimeter

HPNS = Hunters Point Naval Shipyard

mg/m<sup>3</sup> = milligrams per cubic meter

PEL = permissible exposure limit

PM10 = particulate matter less than 10 microns in diameter

TSP = total suspended particulates

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## 5.0 Air Monitoring Results

Weather information (including ambient pressure and temperature data) is presented in the table included as **Attachment 1**. Meteorological data for Stations 1 and 2 were sourced from the Weather Underground (wunderground.com) station APTIM HPNS - KCASANFR1504, Bayview Manor - KCASANFR1775, and Bayview – KCASANFR1508.

**Table 5-1** displays each air monitoring report and the associated dates covered in the report.

Air monitoring results are presented in the following attachments:

- Asbestos – **Attachment 2**
- PM10 – **Attachment 3**
- Lead and Manganese – **Attachment 4**
- TSP – **Attachment 5**
- Radiological – **Attachment 6**

Laboratory reports are included as **Attachment 7** and were subjected to cursory review by the Project Chemist. Radiological data were qualified for low-level contamination below the required detection limit (RDL) in the field filter blanks, negative results, or for minimum detectable concentrations (MDCs) above the RDL. PM10 and metals had some data estimated due to low-level particulates collected on the field blank media. Data, as qualified are considered usable for their intended purposes.

Due to the nature of radiological laboratory analysis, radiological data will be presented as the contractor receives it. Ultimately the radiological results will be slightly delayed in comparison to the Asbestos, PM10, TSP, Lead, and Manganese results.

**Table 5-1: Air Monitoring Report Summary**

Air Monitoring Report Number	Data Date Range
01	12/05/22 – 12/22/22
02	12/23/22 – 3/02/23
03	3/03/23 – 3/23/23
04	3/24/23 – 5/04/23
05	5/05/23 – 6/08/23
06	6/09/23 – 6/22/23
07	6/23/23 – 7/20/23
08	7/21/23 – 8/17/23
09	8/18/23 – 9/28/23
10	9/29/23 – 10/19/23

## **5.1 Report 01**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end dates 12/15/22, 12/21/22, and 12/22/22.

## **5.2 Report 02**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end dates 1/18/23, 1/24/23, 2/07/23, 2/08/23, 2/09/23, and 2/09/23 (second set of samples collected after field activities ceased).

## **5.3 Report 03**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations.

## **5.4 Report 04**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end dates 3/20/23, 4/13/23 (second set of samples collected after field activities ceased).

## **5.5 Report 05**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. It was discovered during this report generation there was a transcription error in the radiation data report. The data has been corrected accordingly. An exceedance was observed for the radiological data presented in AMR 03. The downwind MSC02 station recorded a Thorium-232 value above project screening criteria for the sampling week of 03/20/23 – 3/23/23. This exceedance is described in Attachment 1-6 respectively.

## **5.6 Report 06**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end date 6/15/23 (second set of samples collected after field activities ceased).

## 5.7 Report 07

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations with the exception of the PM10 result at the downwind MSC02 station on 7/6/23. The delta between the downwind and upwind stations was recorded at 304.64 ug/m<sup>3</sup>. There were no PDR results above the project screening criteria for the corresponding 7/6/23 operations.

As established by the Final Parcel C Removal Site Evaluation Dust Management and Air Monitoring Plan, the action level for PM10 filter samples is the Cal OSHA PEL of 5000 ug/m<sup>3</sup>, however for informational purposes the results are also being compared to the DTSC HERO action level of 50 ug/m<sup>3</sup>. The delta was taken between the downwind and upwind PM10 filter results on 7/6/23 (304.64 ug/m<sup>3</sup>) and was below the Parcel C compliance action level, however exceeded the DTSC HERO action level. Real-time PDR results during operations on 7/6/23 at the upwind, downwind, and trench monitoring locations were all below the HERO action level. Operations on 7/6/23 consisted of TU-196 excavation and transporting to the rad laydown area as well as grading pads. No PM10 filter results have exceeded the HERO action level since the inception of the project. A safety stand down was held on 8/17/23 to address the matter and operations will be re-evaluated to reduce the presence of visible dust. The contractor will continue to maintain persistent dust control measures.

The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end date 6/29/23 (second set of samples collected after field activities ceased). The site was closed and therefore no air monitoring was conducted 7/3/23-7/4/23 due to the holiday.

## 5.8 Report 08

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations with the exception of the Thorium-232 result at the downwind MSC02 station for the sampling week of 7/5/23 – 7/6/23. The MSC02 station recorded a Thorium-232 value of 2.09E-15 J µCi/mL which is above the Cal/OSHA PEL screening criteria of 1.20E-15 µCi/mL.

The site was shut down for the holiday 7/3/23 - 7/4/23 and no sampling or work was conducted. The radiological sample filter had a short runtime due to the site closure and ran approximately 32 hours compared to a full week which typically runs 76-83 hours. In AMR 07, GES addressed a PM10 sample for the same week in discussion on 7/6/23 at the MSC02 station, where a result was confirmed above the DTSC HERO action level of 50 ug/m<sup>3</sup> (compared for informational purposes) however remained below the Cal OSHA PEL of 5000 ug/m<sup>3</sup>. Due to the nature of analyzing radiological air samples the contractor is now presenting these results. The field radiological results analyzed before the filters are shipped to the laboratory indicated no values above action levels. PDR data collected on both working days also remained below action levels.

The site operations for this week consisted of excavating TU-196 and grading RSY pads with a skid steer. The Pad graded this week was upwind and in close proximity to the downwind MSC02 station. On 7/5/23 the site experienced warm weather during work hours of 72 degrees Fahrenheit with a strong afternoon wind. Dry ground conditions were noted and present during operations this week.

On 8/17/23 a safety stand down was held to communicate the elevated PM10 result at the MSC02 station discussed in AMR 07. This Th-232 exceedance is from the same corresponding sampling event. Another briefing was held with the field crew to convey the exceedance and reiterate the importance of dust control. GES will be conscious of soil activities during windy conditions and or warm weather using good judgment to cease operations or pivot onto another task. The contractor will continue utilizing the water truck to hydrate haul routes and excavation/grading activities. Traffic onsite will be minimized when possible and speed reduced to decrease the probability of dust generation.

## **5.9 Report 09**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations. The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end date 9/14/23, 9/21/23, and 9/28/23 (second set of samples collected after field activities ceased).

Smoky conditions from the Northern California wildfires present in Bay from 9/19/23 – 9/21/23. These conditions caused elevated PDR readings along with PM10/TSP results. The delta remained below action levels for all data collected during these smoky conditions.

## **5.10 Report 10**

Air monitoring analytical results did not exceed project-specific screening criteria during this reporting period's site operations.

The delta was taken by switching the upwind and downwind results due to the change in wind direction for sample end date 10/05/23, 10/05/23 (second set of samples collected after field activities ceased), 10/10/23, 10/12/23 (second set of samples collected after field activities ceased), 10/19/23, and 10/19/23 (second set of samples collected after field activities ceased).

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## 6.0 References

California Department of Toxic Substances Control (DTSC), 2021. Human and Ecological Risk Office (HERO) Memorandum, Dust Action Levels for Parcel C, Hunters Point Naval Shipyard, San Francisco, California, July.

National Institute for Occupational Safety and Health, (NIOSH), 1994. Manual of Analytical Methods.

United States Environmental Protection Agency (EPA), 1999a. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Specific Methods.

EPA, 1999b. Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air.

Gilbane Federal (Gilbane), 2019. *PR-RP-150 “Radiological Survey and Sampling”*. November.

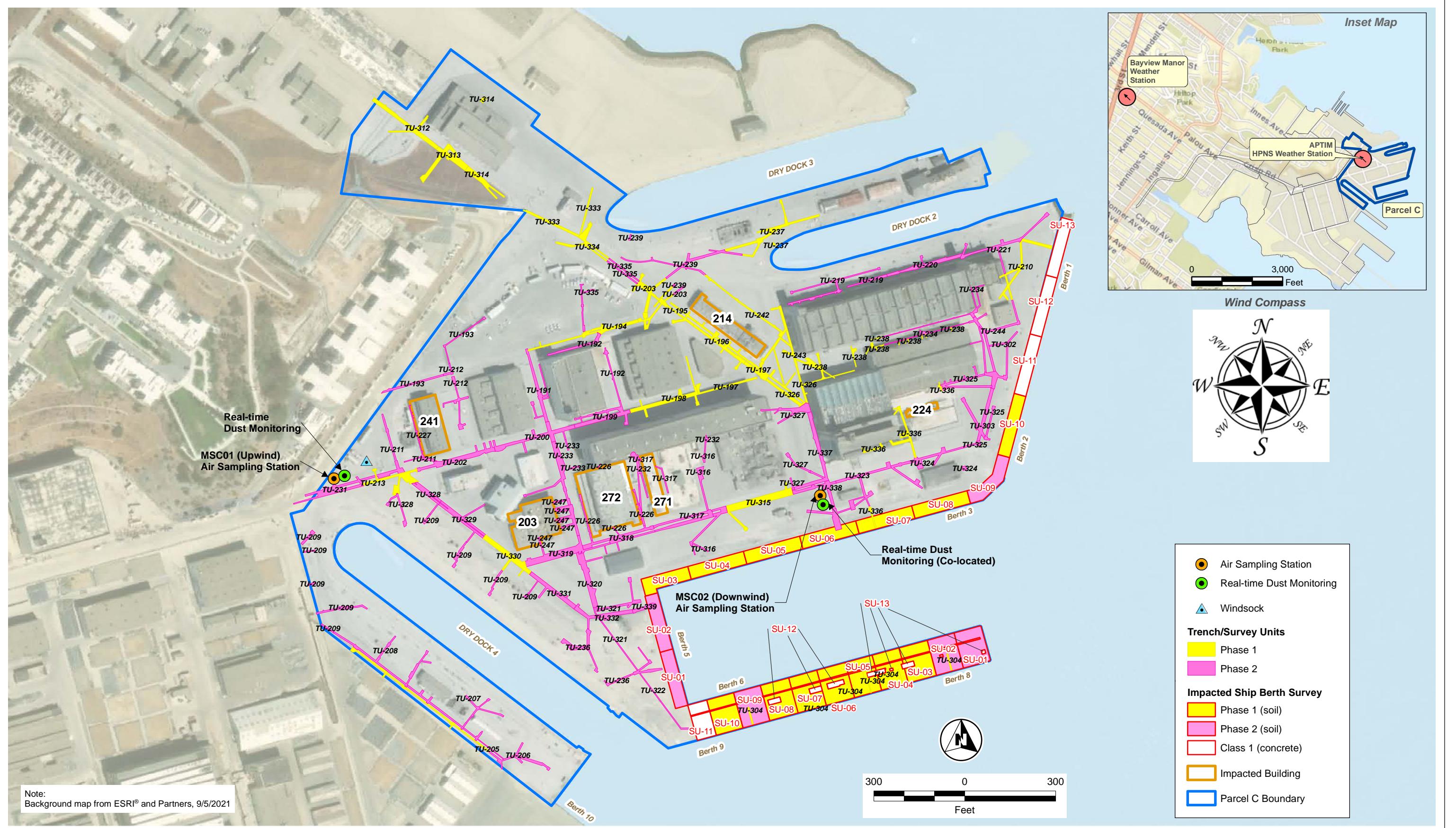
Gilbane, 2022. Final Parcel C Removal Site Evaluation Work Plan, Hunters Point Naval Shipyard, San Francisco, California. July

Tetra Tech EC, 2010, *Final Basewide Dust Control Plan, Revision 1, Hunters Point Shipyard, San Francisco, California*, November 29.

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## FIGURES

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**Removal Site Evaluation Work Plan**  
**Radiological Investigation, Survey, and Reporting at Parcel C**  
Hunters Point Naval Shipyard  
San Francisco, California

**Figure 2-1**  
Air Sampling and Dust Monitoring Locations

**ATTACHMENT 1**  
**AMBIENT PRESSURE, TEMPERATURE, AND**  
**PREVALENT WIND DIRECTION MONITORING RESULTS**

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**Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results**

<b>Start Date</b>	<b>Ambient Pressure (in Hg)</b>	<b>Ambient Temperature (°F)</b>	<b>Prevalent Wind Direction</b>
12/6/2022 <sup>1</sup>	30.09	49.95	ESE
12/7/2022 <sup>1</sup>	30.25	49.27	S
12/8/2022 <sup>1</sup>	30.25	49.27	SSE
12/12/2022 <sup>1</sup>	30.01	46.32	NNW
12/13/2022 <sup>1</sup>	30.16	46.70	SE
12/14/2022 <sup>1</sup>	30.21	46.47	NNE
12/19/2022 <sup>1</sup>	30.30	44.40	NNW
12/20/2022 <sup>1</sup>	30.31	48.36	E
12/21/2022 <sup>1</sup>	30.20	50.77	N
01/17/2023 <sup>1</sup>	30.07	48.87	NNE
01/18/2023 <sup>1</sup>	30.16	49.90	ESE
01/19/2023 <sup>1</sup>	30.21	48.70	NNW
01/23/2023 <sup>1</sup>	30.20	53.48	ENE
01/24/2023 <sup>1</sup>	30.34	53.29	ESE
02/02/2023 <sup>1</sup>	30.23	50.22	ESE
02/06/2023 <sup>1</sup>	30.35	50.98	E
02/07/2023 <sup>1</sup>	30.34	51.78	E
02/08/2023 <sup>1</sup>	30.31	53.27	E
02/09/2023 <sup>1</sup>	30.27	55.79	ENE
02/13/2023 <sup>1</sup>	29.96	50.55	WNW
02/14/2023 <sup>1</sup>	30.09	47.83	WNW
02/15/2023 <sup>1</sup>	30.25	47.93	NNW
02/16/2023 <sup>1</sup>	30.24	48.58	SE
02/20/2023 <sup>1</sup>	30.05	54.52	WSW
02/21/2023 <sup>1</sup>	29.79	47.61	WNW
02/22/2023 <sup>1</sup>	29.82	43.07	WNW
02/23/2023 <sup>1</sup>	29.85	44.76	SSW
03/01/2023 <sup>1</sup>	30.01	48.32	NNW
03/02/2023 <sup>1</sup>	30.16	51.09	ESE
03/06/2023 <sup>1</sup>	30.16	46.84	SSE
03/07/2023 <sup>1</sup>	30.14	47.89	SSW
03/08/2023 <sup>1</sup>	30.14	47.45	SE
03/09/2023 <sup>1</sup>	29.97	47.73	SE
03/13/2023 <sup>1</sup>	29.96	57.83	SSE
03/15/2023 <sup>1</sup>	30.01	50.52	WSW
03/16/2023 <sup>1</sup>	30.08	52.34	SE
03/20/2023 <sup>1</sup>	29.77	49.75	SW
03/22/2023 <sup>1</sup>	30.00	51.79	NW
03/23/2023 <sup>1</sup>	30.25	51.43	NW
03/27/2023 <sup>1</sup>	30.10	51.34	SSE
03/30/2023 <sup>1</sup>	29.99	51.08	E

**Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results**

<b>Start Date</b>	<b>Ambient Pressure (in Hg)</b>	<b>Ambient Temperature (°F)</b>	<b>Prevalent Wind Direction</b>
04/03/2023 <sup>1</sup>	30.15	47.46	WNW
04/04/2023 <sup>1</sup>	30.21	48.40	W
04/05/2023 <sup>1</sup>	30.18	49.79	WSW
04/06/2023 <sup>1</sup>	30.13	54.30	ESE
04/10/2023 <sup>1</sup>	30.15	55.99	WSW
04/11/2023 <sup>2</sup>	30.14	53.33	WSW
04/12/2023 <sup>2</sup>	30.00	52.13	W
04/13/2023 <sup>2</sup>	29.98	55.71	NNE
04/17/2023 <sup>1</sup>	30.03	50.96	WNW
04/18/2023 <sup>1</sup>	30.12	50.69	WNW
04/19/2023 <sup>1</sup>	30.25	52.08	WNW
04/20/2023 <sup>1</sup>	30.32	58.36	SW
04/24/2023 <sup>1</sup>	29.97	53.17	WSW
04/25/2023 <sup>1</sup>	29.95	55.21	WSW
04/26/2023 <sup>1</sup>	29.95	55.43	W
04/27/2023 <sup>1</sup>	29.94	64.51	NW
05/01/2023 <sup>2</sup>	29.88	52.10	WSW
05/02/2023 <sup>2</sup>	29.89	52.56	ESE
05/04/2023 <sup>2</sup>	29.97	55.34	SW
05/08/2023 <sup>2</sup>	30.18	57.51	WSW
05/09/2023 <sup>2</sup>	30.09	56.20	W
05/10/2023 <sup>2</sup>	30.17	54.81	WSW
05/11/2023 <sup>2</sup>	30.17	50.77	SW
05/15/2023 <sup>1</sup>	30.07	56.20	W
05/16/2023 <sup>1</sup>	29.99	55.57	WSW
05/17/2023 <sup>2</sup>	30.01	54.94	WSW
05/18/2023 <sup>2</sup>	30.05	54.90	WSW
05/22/2023 <sup>1</sup>	29.88	56.00	SW
05/23/2023 <sup>1</sup>	29.87	55.59	SW
05/24/2023 <sup>1</sup>	29.89	54.76	SW
05/25/2023 <sup>1</sup>	29.88	56.02	SW
05/30/2023 <sup>1</sup>	30.04	57.05	SW
05/31/2023 <sup>1</sup>	29.97	55.47	SW
06/01/2023 <sup>1</sup>	29.99	59.03	WSW
06/05/2023 <sup>2</sup>	29.89	60.10	WSW
06/06/2023 <sup>2</sup>	29.95	60.40	SSW
06/07/2023 <sup>2</sup>	30.07	60.30	WSW
06/08/2023 <sup>2</sup>	30.12	62.20	W
06/12/2023 <sup>2</sup>	30.09	59.73	SW
06/13/2023 <sup>2</sup>	30.08	57.89	WSW
06/14/2023 <sup>2</sup>	29.96	58.08	WSW

**Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results**

<b>Start Date</b>	<b>Ambient Pressure (in Hg)</b>	<b>Ambient Temperature (°F)</b>	<b>Prevalent Wind Direction</b>
06/15/2023 <sup>2</sup>	29.99	60.50	NNE
06/19/2023 <sup>2</sup>	30.13	57.99	W
06/20/2023 <sup>2</sup>	30.18	58.41	WSW
06/21/2023 <sup>2</sup>	30.07	56.49	WSW
06/22/2023 <sup>2</sup>	30.03	60.34	SW
06/26/2023 <sup>2</sup>	30.06	55.39	SW
06/27/2023 <sup>2</sup>	30.00	54.37	SW
06/28/2023 <sup>2</sup>	30.02	54.54	SW
06/29/2023 <sup>2</sup>	30.04	57.98	NE
07/05/2023 <sup>2</sup>	30.03	59.48	WSW
07/06/2023 <sup>2</sup>	30.03	60.47	WSW
07/10/2023 <sup>2</sup>	30.05	55.93	WSW
07/11/2023 <sup>2</sup>	30.06	58.63	WSW
07/12/2023 <sup>2</sup>	30.09	56.44	WSW
07/13/2023 <sup>2</sup>	30.10	60.07	WSW
07/17/2023 <sup>2</sup>	29.96	63.50	WSW
07/18/2023 <sup>2</sup>	30.05	58.01	WSW
07/19/2023 <sup>2</sup>	30.10	58.10	WSW
07/20/2023 <sup>2</sup>	30.11	62.90	W
07/24/2023 <sup>2</sup>	30.14	59.26	WSW
07/25/2023 <sup>2</sup>	30.09	61.32	WSW
07/26/2023 <sup>2</sup>	30.06	59.68	WSW
07/27/2023 <sup>2</sup>	30.10	59.57	WSW
07/31/2023 <sup>2</sup>	30.07	60.22	WSW
08/01/2023 <sup>2</sup>	30.11	58.98	WSW
08/02/2023 <sup>2</sup>	30.13	58.06	WSW
08/03/2023 <sup>2</sup>	30.18	59.31	WSW
08/07/2023 <sup>3</sup>	29.96	61.28	W
08/08/2023 <sup>3</sup>	29.96	61.41	W
08/09/2023 <sup>3</sup>	29.93	60.81	W
08/10/2023 <sup>3</sup>	29.95	64.00	W
08/14/2023 <sup>3</sup>	30.01	63.89	WSW
08/15/2023 <sup>2</sup>	30.04	63.42	WSW
08/16/2023 <sup>2</sup>	29.97	63.81	W
08/17/2023 <sup>2</sup>	29.94	65.92	WSW
08/21/2023 <sup>2</sup>	30.04	68.32	SSW
08/22/2023 <sup>2</sup>	30.05	66.98	WSW
08/23/2023 <sup>2</sup>	29.95	72.72	W

**Attachment 1: Ambient Pressure, Temperature, and Prevalent Wind Direction Monitoring Results**

<b>Start Date</b>	<b>Ambient Pressure (in Hg)</b>	<b>Ambient Temperature (°F)</b>	<b>Prevalent Wind Direction</b>
08/24/2023 <sup>2</sup>	29.99	70.77	WSW
08/28/2023 <sup>2</sup>	30.06	62.54	WSW
08/29/2023 <sup>2</sup>	30.03	66.82	S
08/30/2023 <sup>2</sup>	29.89	69.37	WSW
08/31/2023 <sup>2</sup>	29.85	65.38	WSW
09/05/2023 <sup>2</sup>	29.97	61.19	WSW
09/06/2023 <sup>2</sup>	30.04	62.45	WSW
09/07/2023 <sup>2</sup>	30.06	62.73	W
09/11/2023 <sup>2</sup>	30.05	62.67	SW
09/12/2023 <sup>2</sup>	30.02	61.28	SW
09/13/2023 <sup>2</sup>	30.00	61.74	W
09/14/2023 <sup>2</sup>	30.02	64.17	SSE
09/18/2023 <sup>2</sup>	30.07	63.23	WSW
09/19/2023 <sup>2</sup>	29.99	61.23	WSW
09/20/2023 <sup>3</sup>	29.85	60.44	W
09/21/2023 <sup>2</sup>	29.97	63.43	ENE
09/25/2023 <sup>2</sup>	30.16	67.62	SSW
09/26/2023 <sup>2</sup>	30.19	63.12	WSW
09/27/2023 <sup>2</sup>	30.08	62.81	WSW
09/28/2023 <sup>3</sup>	29.96	65.16	SE
10/02/2023 <sup>3</sup>	30.03	60.24	W
10/03/2023 <sup>3</sup>	29.96	62.67	W
10/04/2023 <sup>3</sup>	29.97	75.00	NNE
10/05/2023 <sup>3</sup>	30.03	78.62	ENE
10/09/2023 <sup>3</sup>	29.85	62.88	SE
10/10/2023 <sup>3</sup>	29.85	61.42	W
10/11/2023 <sup>3</sup>	29.87	61.13	W
10/12/2023 <sup>3</sup>	29.87	66.57	NNE
10/16/2023 <sup>3</sup>	30.08	63.27	W
10/17/2023 <sup>3</sup>	29.98	61.34	W
10/18/2023 <sup>3</sup>	29.94	71.58	N
10/19/2023 <sup>3</sup>	29.96	76.27	NNE

**Notes:**

<sup>1</sup>Data collected using wunderground.com from Bayview Manor - KCASANFR1775

<sup>2</sup>Data collected using wunderground.com from APTIM HPNS - KCASANFR1504

<sup>3</sup> Data collected using wunderground.com from Bayview - KCASANFR1508

°F = degree Fareheit

in Hg = inches of mercury

E = East

S = South

N = North

W = West

**ATTACHMENT 2**  
**ASBESTOS MONITORING RESULTS**

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**Attachment 2: Asbestos Monitoring Results**

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
							0.100 (fibers/cm <sup>3</sup> )	
MSC01-120622	12/07/22	1	3.7	1,334	4935	8.5	0.001	No
MSC02-120622	12/07/22	2	3.7	1,353	5006	9.0	0.001	No
MSC01-120722	12/08/22	1	3.5	1,443	5050	6.0	0.001	No
MSC02-120722	12/08/22	2	3.7	1,442	5335	3.0	< 0.001	No
MSC01-120822	12/08/22 <sup>2</sup>	1	3.3	382	1260	5.0	< 0.002	No
MSC02-120822	12/08/22 <sup>2</sup>	2	3.4	383	1302	3.0	< 0.002	No
MSC01-121222	12/13/22	1	3.6	1,435	5166	9.5	0.001	No
MSC02-121222	12/13/22	2	3.3	1,433	4728	5.5	0.001	No
MSC01-121322	12/14/22	1	3.5	1,454	5089	5.0	< 0.001	No
MSC02-121322	12/14/22	2	3.3	1,456	4804	5.5	0.001	No
MSC01-121422	12/15/22	1	3.6	1,434	5162	7.5	0.001	No
MSC02-121422	12/15/22	2	3.3	1,432	4725	4.0	< 0.001	No
MSC01-121922	12/20/22	1	3.6	1,439	5180	4.0	< 0.001	No
MSC02-121922	12/20/22	2	3.4	1,430	4862	0.5	< 0.001	No
MSC01-122022	12/21/22	1	3.7	1,430	5291	3.0	< 0.001	No
MSC02-122022	12/21/22	2	3.7	1,443	5339	4.5	< 0.001	No
MSC01-122122	12/22/22	1	3.7	1,446	5350	7.0	0.001	No
MSC02-122122	12/22/22	2	3.7	1,447	5353	8.0	0.001	No
MSC01-011723	01/18/23	1	3.5	1,338	4683	21.0	0.002	No
MSC02-011723	01/18/23	2	3.4	1,383	4702	13.0	0.001	No
MSC01-011823	01/19/23	1	3.7	1,444	5342	16.0	0.001	No
MSC02-011823	01/19/23	2	3.2	1,438	4601	16.5	0.002	No
MSC01-011923	01/19/23 <sup>2</sup>	1	3.2	331	1059	6.5	0.003	No
MSC02-011923	01/19/23 <sup>2</sup>	2	3.4	323	1098	11.5	0.005	No
MSC01-012323	01/24/23	1	3.6	1,450	5220	12.5	0.001	No
MSC02-012323	01/24/23	2	3.6	1,456	5241	13.0	0.001	No
MSC01-012423	01/25/23	1	3.3	1,446	4771	19.5	0.002	No
MSC02-012423	01/25/23	2	3.3	1,446	4771	13.5	0.001	No
MSC01-020223	02/02/23 <sup>2</sup>	1	3.6	438	1576	10.0	0.003	No
MSC02-020223	02/02/23 <sup>2</sup>	2	3.3	458	1511	13.0	0.004	No
MSC01-020623	02/07/23	1	3.2	1,428	4569	9.5	0.001	No
MSC02-020623	02/07/23	2	3.3	1,431	4722	9.0	0.001	No
MSC01-020723	02/08/23	1	3.5	1,470	5145	10.0	0.001	No
MSC02-020723	02/08/23	2	3.5	1,464	5124	11.5	0.001	No
MSC01-020823	02/09/23	1	3.3	1,418	4679	14.5	0.002	No
MSC02-020823	02/09/23	2	3.5	1,419	4966	9.5	0.001	No
MSC01-020923	02/09/23 <sup>2</sup>	1	3.2	382	1222	9.5	0.004	No
MSC02-020923	02/09/23 <sup>2</sup>	2	3.5	384	1344	10.0	0.004	No
MSC01-021323	02/14/23	1	3.6	1,448	5212	10.0	0.001	No
MSC02-021323	02/14/23	2	3.7	1,472	5446	10.0	0.001	No
MSC01-021423	02/15/23	1	3.3	1,429	4715	15.0	0.002	No
MSC02-021423	02/15/23	2	3.7	1,406	5202	12.0	0.001	No
MSC01-021523	02/16/23	1	3.5	1,447	5064	12.0	0.001	No
MSC02-021523	02/16/23	2	3.4	1,446	4916	12.0	0.001	No
MSC01-021623	02/16/23 <sup>2</sup>	1	3.8	396	1504	10.5	0.003	No
MSC02-021623	02/16/23 <sup>2</sup>	2	3.6	399	1436	11.0	0.001	No
MSC01-022023	02/21/23	1	3.7	1,440	5328	15.5	0.001	No
MSC02-022023	02/21/23	2	3.7	1,424	5268	16.0	0.001	No
MSC01-022123	02/22/23	1	3.3	1,456	4804	14.0	0.001	No
MSC02-022123	02/22/23	2	3.5	1,459	5106	26.0	0.002	No
MSC01-022223	02/23/23	1	3.1	1,424	4414	12.5	0.001	No
MSC02-022223	02/23/23	2	3.2	1,417	4534	12.5	0.001	No
MSC01-022323	02/23/23 <sup>2</sup>	1	3.3	489	1613	7.0	0.002	No
MSC02-022323	02/23/23 <sup>2</sup>	2	3.2	494	1580	7.0	0.002	No
MSC01-030123	03/02/23	1	3.4	1,427	4851	18.0	0.002	No
MSC02-030123	03/02/23	2	3.2	1,422	4550	13.0	0.001	No
MSC01-030223	03/02/23 <sup>2</sup>	1	3.7	423	1565	16.5	0.005	No
MSC02-030223	03/02/23 <sup>2</sup>	2	3.4	436	1482	13.0	0.004	No
MSC01-030623	03/07/23	1	3.3	1,428	4712	10.0	0.001	No
MSC02-030623	03/07/23	2	3.3	1,422	4692	9.5	0.001	No
MSC01-030723	03/08/23	1	3.6	1,430	5148	14.5	0.001	No
MSC02-030723	03/08/23	2	3.1	1,433	4442	10.0	0.001	No
MSC01-030823	03/09/23	1	3.1	1,471	4560	15.5	0.002	No
MSC02-030823	03/09/23	2	3.2	1,470	4704	11.5	0.001	No

**Attachment 2: Asbestos Monitoring Results**

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
							0.100 (fibers/cm <sup>3</sup> )	
MSC01-030923	03/09/23 <sup>2</sup>	1	3.1	372	1153	12.5	0.005	No
MSC02-030923	03/09/23 <sup>2</sup>	2	3.1	387	1199	7.0	0.003	No
MSC01-031323	03/14/23	1	3.6	1,433	5158	12.5	0.001	No
MSC02-031323	03/14/23	2	3.3	1,444	4765	9.0	0.001	No
MSC01-031523	03/16/23	1	3.5	1,455	5092	16.5	0.002	No
MSC02-031523	03/16/23	2	3.6	1,434	5162	9.0	0.001	No
MSC01-031623	03/16/23 <sup>2</sup>	1	3.3	423	1395	8.0	0.003	No
MSC02-031623	03/16/23 <sup>2</sup>	2	3.6	423	1558	13.5	0.004	No
MSC01-032023	03/21/23	1	3.7	1,450	5365	14.5	0.001	No
MSC02-032023	03/21/23	2	3.7	1,450	5365	22.0	0.002	No
MSC01-032223	03/23/23	1	3.6	1,354	4874	6.5	0.001	No
MSC02-032223	03/23/23	2	3.7	1,390	5143	10.0	0.001	No
MSC01-032323	03/23/23 <sup>2</sup>	1	3.6	430	1539	10.0	0.003	No
MSC02-032323	03/23/23 <sup>2</sup>	2	3.6	423	1531	8.0	0.003	No
MSC01-032723	3/28/23	1	3.6	1,437	5173	14.5	0.001	No
MSC02-032723	3/28/23	2	3.7	1,444	5342	12.0	0.001	No
MSC01-033023	3/30/23 <sup>2</sup>	1	3.3	447	1564	10.0	0.003	No
MSC02-033023	3/30/23 <sup>2</sup>	2	3.6	463	1713	11.0	0.003	No
MSC01-040323	04/04/23	1	3.5	1,458	5103	18.5	0.002	No
MSC02-040323	04/04/23	2	3.6	1,438	5176	12.5	0.001	No
MSC01-040423	04/05/23	1	3.2	1,443	4617	16.0	0.002	No
MSC02-040423	04/05/23	2	3.5	1,447	5064	14.0	0.001	No
MSC01-040523	04/06/23	1	3.5	1,440	5040	21.0	0.002	No
MSC02-040523	04/06/23	2	3.8	1,435	5453	13.0	0.001	No
MSC01-040623	04/06/23 <sup>2</sup>	1	3.3	480	1584	10.5	0.003	No
MSC02-040623	04/06/23 <sup>2</sup>	2	3.7	489	1809	12.5	0.003	No
MSC01-041023	04/11/23	1	3.4	1,461	4967	15.0	0.001	No
MSC02-041023	04/11/23	2	3.1	1,464	4538	21.5	0.002	No
MSC01-041123	04/12/23	1	3.3	1,415	4669	16.0	0.002	No
MSC02-041123	04/12/23	2	3.2	1,407	4502	16.0	0.002	No
MSC01-041223	04/13/23	1	3.3	1,436	4738	14.0	0.001	No
MSC02-041223	04/13/23	2	3.2	1,442	4614	27.0	0.003	No
MSC01-041323	04/13/23 <sup>2</sup>	1	3.2	463	1481	20.0	0.007	No
MSC02-041323	04/13/23 <sup>2</sup>	2	3.3	461	1521	19.5	0.006	No
MSC01-041723	04/18/23	1	3.6	1,454	5234	10.5	0.001	No
MSC02-041723	04/18/23	2	3.3	1,445	4768	11.0	0.001	No
MSC01-041823	04/19/23	1	3.0	1,419	4257	14.0	0.002	No
MSC02-041823	04/19/23	2	3.1	1,423	4411	14.0	0.002	No
MSC01-041923	04/20/23	1	3.4	1,449	4926	20.5	0.002	No
MSC02-041923	04/20/23	2	3.5	1,457	5099	11.0	0.001	No
MSC01-042023	04/20/23 <sup>2</sup>	1	3.4	459	1560	14.5	0.005	No
MSC02-042023	04/20/23 <sup>2</sup>	2	3.1	498	1543	17.5	0.006	No
MSC01-042423	04/25/23	1	3.2	1,435	4592	24.0	0.003	No
MSC02-042423	04/25/23	2	3.2	1,438	4601	17.0	0.002	No
MSC01-042523	04/26/23	1	3.2	1,436	4595	20.5	0.002	No
MSC02-042523	04/26/23	2	3.2	1,435	4592	12.0	0.001	No
MSC01-042623	04/27/23	1	3.6	1,437	5173	24.5	0.002	No
MSC02-042623	04/27/23	2	3.1	1,438	4457	22.0	0.002	No
MSC01-042723	04/27/23 <sup>2</sup>	1	3.1	455	1410	19.0	0.007	No
MSC02-042723	04/27/23 <sup>2</sup>	2	3.1	431	1336	16.5	0.006	No
MSC01-050123	05/02/23	1	3.6	1,475	5310	20.5	0.002	No
MSC02-050123	05/02/23	2	3.2	1,461	4675	17.5	0.002	No
MSC01-050223	05/03/23	1	3.9	1,456	5678	22.0	0.002	No
MSC02-050223	05/03/23	2	3.3	1,479	4880	19.0	0.002	No
MSC01-050423	05/04/23 <sup>2</sup>	1	3.1	507	1571	22.0	0.007	No
MSC02-050423	05/04/23 <sup>2</sup>	2	3.2	481	1539	26.0	0.008	No
MSC01-050823	05/09/23	1	3.6	1,428	5140	13.5	0.001	No
MSC02-050823	05/09/23	2	3.3	1,441	4755	10.5	0.001	No
MSC01-050923	05/10/23	1	3.4	1,441	4899	17.0	0.002	No
MSC02-050923	05/10/23	2	3.2	1,439	4604	11.5	0.001	No
MSC01-051023	05/11/23	1	3.0	1,466	4398	22.0	0.002	No
MSC02-051023	05/11/23	2	3.2	1,435	4592	14.0	0.001	No
MSC01-051123	05/11/23 <sup>2</sup>	1	3.1	461	1429	23.0	0.008	No
MSC02-051123	05/11/23 <sup>2</sup>	2	3.2	487	1558	15.5	0.005	No

**Attachment 2: Asbestos Monitoring Results**

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
							0.100 (fibers/cm <sup>3</sup> )	
MSC01-051523	05/16/23	1	3.1	1,483	4597	19.5	0.002	No
MSC02-051523	05/16/23	2	3.2	1,459	4668	20.0	0.002	No
MSC01-051623	05/17/23	1	3.3	1,416	4672	15.0	0.002	No
MSC02-051623	05/17/23	2	3.0	1,415	4245	16.0	0.002	No
MSC01-051723	05/18/23	1	3.1	1,455	4510	17.0	0.002	No
MSC02-051723	05/18/23	2	3.0	1,455	4365	21.0	0.002	No
MSC01-051823	05/18/23 <sup>2</sup>	1	2.3	430	989	16.5	0.008	No
MSC02-051823	05/18/23 <sup>2</sup>	2	3.1	429	1329	20.0	0.007	No
MSC01-052223	05/23/23	1	3.2	1,465	4668	14.5	0.002	No
MSC02-052223	05/23/23	2	3.1	1,449	4491	24.5	0.003	No
MSC01-052323	05/24/23	1	3.2	1,423	4553	26.5	0.003	No
MSC02-052323	05/24/23	2	2.9	1,428	4141	17.5	0.002	No
MSC01-052423	05/25/23	1	3.1	1,423	4411	21.0	0.002	No
MSC02-052423	05/25/23	2	2.9	1,452	4210	16.0	0.002	No
MSC01-052523	05/25/23 <sup>2</sup>	1	3.2	458	1465	27.5	0.009	No
MSC02-052523	05/25/23 <sup>2</sup>	2	3.1	465	1441	31.5	0.011	No
MSC01-053023	05/31/23	1	3.7	1,427	5279	20.5	0.002	No
MSC02-053023	05/31/23	2	3.2	1,433	4585	29.0	0.003	No
MSC01-053123	06/01/23	1	3.4	1,447	4919	17.0	0.002	No
MSC02-053123	06/01/23	2	3.2	1,444	4620	16.5	0.002	No
MSC01-060123	06/01/23 <sup>2</sup>	1	3.4	501	1703	18.0	0.005	No
MSC02-060123	06/01/23 <sup>2</sup>	2	3.2	493	1577	17.5	0.005	No
MSC01-060523	06/06/23	1	3.7	1,433	5302	17.0	0.002	No
MSC02-060523	06/06/23	2	3.2	1,431	4579	12.0	0.001	No
MSC01-060623	06/07/23	1	3.6	1,433	5158	17.5	0.002	No
MSC02-060623	06/07/23	2	3.3	1,434	4732	14.0	0.001	No
MSC01-060723	06/08/23	1	3.7	1,457	5390	24.5	0.002	No
MSC02-060723	06/08/23	2	3.4	1,453	4940	16.0	0.002	No
MSC01-060823	06/08/23 <sup>2</sup>	1	3.6	423	1522	14.0	0.005	No
MSC02-060823	06/08/23 <sup>2</sup>	2	3.5	409	1431	18.5	0.006	No
MSC01-061223	06/13/23	1	3.5	1,439	5036	12.5	0.001	No
MSC02-061223	06/13/23	2	3.7	1,442	5335	19.0	0.002	No
MSC01-061323	06/14/23	1	3.4	1,426	4848	12.5	0.001	No
MSC02-061323	06/14/23	2	3.2	1,426	4563	12.5	0.001	No
MSC01-061423	06/15/23	1	3.5	1,442	5047	13.5	0.001	No
MSC02-061423	06/15/23	2	3.2	1,444	4620	20.0	0.002	No
MSC01-061523	06/15/23 <sup>2</sup>	1	3.2	356	1139	19.0	0.002	No
MSC02-061523	06/15/23 <sup>2</sup>	2	3.6	370	1332	15.0	0.001	No
MSC01-061923	06/20/23	1	3.4	1,382	4698	17.5	0.002	No
MSC02-061923	06/20/23	2	3.2	1,455	4656	18.0	0.002	No
MSC01-062023	06/21/23	1	3.6	1,441	5187	24.5	0.002	No
MSC02-062023	06/21/23	2	3.2	1,432	4582	13.0	0.001	No
MSC01-062123	06/22/23	1	3.5	1,429	5001	14.0	0.001	No
MSC02-062123	06/22/23	2	3.2	1,430	4576	15.0	0.002	No
MSC01-062223	06/22/23 <sup>2</sup>	1	3.4	506	1720	17.5	0.005	No
MSC02-062223	06/22/23 <sup>2</sup>	2	3.2	492	1574	18.0	0.006	No
MSC01-062623	06/27/23	1	3.6	1,420	5112	15.0	0.001	No
MSC02-062623	06/27/23	2	3.6	1,417	5101	16.5	0.002	No
MSC01-062723	06/28/23	1	3.4	1,440	4896	16.0	0.002	No
MSC02-062723	06/28/23	2	3.4	1,441	4899	12.0	0.001	No
MSC01-062823	06/29/23	1	3.5	1,432	5012	22.5	0.002	No
MSC02-062823	06/29/23	2	3.2	1,461	4675	12.5	0.001	No
MSC01-062923	06/29/23 <sup>2</sup>	1	3.7	342	1265	14.5	0.006	No
MSC02-062923	06/29/23 <sup>2</sup>	2	3.3	326	1075	15.5	0.007	No
MSC01-070523	07/06/23	1	3.6	1,431	5151	19.5	0.002	No
MSC02-070523	07/06/23	2	3.4	1,422	4834	18.0	0.002	No
MSC01-070623	07/06/23 <sup>2</sup>	1	3.6	513	1846	15.0	0.004	No
MSC02-070623	07/06/23 <sup>2</sup>	2	3.3	486	1603	17.5	0.005	No
MSC01-071023	07/11/23	1	3.4	1,403	4770	8.0	0.001	No
MSC02-071023	07/11/23	2	3.6	1,433	5158	16.5	0.002	No
MSC01-071123	07/12/23	1	3.3	1,437	4742	16.0	0.002	No
MSC02-071123	07/12/23	2	3.6	1,435	5166	14.5	0.001	No
MSC01-071223	07/13/23	1	3.6	1,454	5234	19.5	0.002	No
MSC02-071223	07/13/23	2	3.5	1,453	5085	17.0	0.002	No

**Attachment 2: Asbestos Monitoring Results**

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
							0.100 (fibers/cm <sup>3</sup> )	
MSC01-071323	07/13/23 <sup>2</sup>	1	3.6	480	1728	11.0	0.003	No
MSC02-071323	07/13/23 <sup>2</sup>	2	3.4	470	1598	19.5	0.006	No
MSC01-071723	07/18/23	1	3.7	1,430	5291	26.0	0.002	No
MSC02-071723	07/18/23	2	3.6	1,430	5148	10.5	0.001	No
MSC01-071823	07/19/23	1	3.4	1,441	4899	17.5	0.002	No
MSC02-071823	07/19/23	2	3.3	1,441	4755	9.5	0.001	No
MSC01-071923	07/20/23	1	3.5	1,434	5019	5.5	0.001	No
MSC02-071923	07/20/23	2	3.4	1,442	4902	6.5	0.001	No
MSC01-072023	07/20/23 <sup>2</sup>	1	3.6	537	1933	7.5	0.002	No
MSC02-072023	07/20/23 <sup>2</sup>	2	3.4	515	1751	10.0	0.003	No
MSC01-072423	07/25/23	1	3.6	1,409	5072	18.0	0.002	No
MSC02-072423	07/25/23	2	3.4	1,412	4800	13.5	0.001	No
MSC01-072523	07/26/23	1	3.3	1,442	4758	11.5	0.001	No
MSC02-072523	07/26/23	2	3.2	1,452	4646	11.0	0.001	No
MSC01-072623	07/27/23	1	3.6	1,443	5194	23.0	0.002	No
MSC02-072623	07/27/23	2	3.1	1,436	4451	12.0	0.001	No
MSC01-072723	07/27/23 <sup>2</sup>	1	3.6	517	1861	8.5	0.002	No
MSC02-072723	07/27/23 <sup>2</sup>	2	3.2	489	1564	9.0	0.003	No
MSC01-073123	08/01/23	1	3.2	1,411	4515	8.0	0.001	No
MSC02-073123	08/01/23	2	3.6	1,418	5104	6.0	0.001	No
MSC01-080123	08/02/23	1	3.2	1,433	4585	14.0	0.001	No
MSC02-080123	08/02/23	2	3.6	1,427	5137	12.0	0.001	No
MSC01-080223	08/03/23	1	3.3	1,446	4771	11.5	0.001	No
MSC02-080223	08/03/23	2	3.6	1,444	5198	7.5	0.001	No
MSC01-080323	08/03/23 <sup>2</sup>	1	3.2	534	1708	10.5	0.003	No
MSC02-080323	08/03/23 <sup>2</sup>	2	3.6	509	1832	11.0	0.003	No
MSC01-080723	08/08/23	1	3.3	1,429	4715	12.0	0.001	No
MSC02-080723	08/08/23	2	3.6	1,434	5162	15.5	0.001	No
MSC01-080823	08/09/23	1	3.0	1,447	4341	16.0	0.002	No
MSC02-080823	08/09/23	2	3.4	1,446	4916	10.0	0.001	No
MSC01-080923	08/10/23	1	3.2	1,432	4582	13.5	0.001	No
MSC02-080923	08/10/23	2	3.4	1,432	4868	11.5	0.001	No
MSC01-081023	08/10/23 <sup>2</sup>	1	3.2	420	1344	13.5	0.005	No
MSC02-081023	08/10/23 <sup>2</sup>	2	3.3	399	1316	15.5	0.006	No
MSC01-081423	08/15/23	1	3.4	1,413	4804	8.0	0.001	No
MSC02-081423	08/15/23	2	3.4	1,414	4807	8.0	0.001	No
MSC01-081523	08/16/23	1	3.2	1,415	4528	6.5	0.001	No
MSC02-081523	08/16/23	2	3.4	1,427	4851	5.0	< 0.001	No
MSC01-081623	08/17/23	1	3.5	1,426	4991	6.1	0.001	No
MSC02-081623	08/17/23	2	3.3	1,450	4785	6.0	0.001	No
MSC01-081723	08/17/23 <sup>2</sup>	1	3.4	489	1662	5.0	< 0.002	No
MSC02-081723	08/17/23 <sup>2</sup>	2	3.4	473	1608	6.0	0.002	No
MSC01-082123	08/22/23	1	3.4	1,425	4845	4.0	< 0.001	No
MSC02-082123	08/22/23	2	3.2	1,421	4547	3.0	< 0.001	No
MSC01-082223	08/23/23	1	3.4	1,446	4916	8.0	0.001	No
MSC02-082223	08/23/23	2	3.3	1,447	4775	3.0	< 0.001	No
MSC01-082323	08/24/23	1	3.5	1,437	5029	7.5	0.001	No
MSC02-082323	08/24/23	2	3.2	1,438	4601	4.0	< 0.001	No
MSC01-082423	08/24/23 <sup>2</sup>	1	3.4	495	1683	5.0	< 0.002	No
MSC02-082423	08/24/23 <sup>2</sup>	2	3.2	471	1507	10.0	0.003	No
MSC01-082823	08/29/23	1	3.7	1,413	5228	1.5	< 0.001	No
MSC02-082823	08/29/23	2	3.2	1,415	4528	4.0	< 0.001	No
MSC01-082923	08/30/23	1	3.6	1,430	5148	3.5	< 0.001	No
MSC02-082923	08/30/23	2	3.3	1,422	4692	3.0	< 0.001	No
MSC01-083023	08/31/23	1	3.3	1,477	4874	4.0	< 0.001	No
MSC02-083023	08/31/23	2	3.4	1,452	4936	1.0	< 0.001	No
MSC01-083123	08/31/23 <sup>2</sup>	1	3.2	401	1283	4.0	< 0.002	No
MSC02-083123	08/31/23 <sup>2</sup>	2	3.5	402	1407	3.0	< 0.002	No
MSC01-090523	09/06/23	1	3.2	1,433	4585	6.0	0.001	No
MSC02-090523	09/06/23	2	3.2	1,428	4569	6.0	0.001	No
MSC01-090623	09/07/23	1	3.2	1,446	4627	10.0	0.001	No
MSC02-090623	09/07/23	2	3.2	1,443	4617	4.0	< 0.001	No
MSC01-090723	09/07/23 <sup>2</sup>	1	3.3	464	1531	7.5	0.002	No
MSC02-090723	09/07/23 <sup>2</sup>	2	3.2	454	1452	3.0	< 0.002	No

## Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information			Asbestos Fibers		
Sample ID	Sample End Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
							0.100 (fibers/cm <sup>3</sup> )	
MSC01-091123	09/12/23	1	3.3	1,440	4752	25.5	0.003	No
MSC02-091123	09/12/23	2	3.7	1,441	5331	23.5	0.002	No
MSC01-091223	09/13/23	1	3.2	1,447	4630	11.0	0.001	No
MSC02-091223	09/13/23	2	3.5	1,449	5071	6.5	0.001	No
MSC01-091323	09/14/23	1	3.1	1,437	4454	4.5	< 0.001	No
MSC02-091323	09/14/23	2	3.6	1,434	5162	3.5	< 0.001	No
MSC01-091423	09/14/23 <sup>2</sup>	1	3.4	495	1683	3.5	< 0.002	No
MSC02-091423	09/14/23 <sup>2</sup>	2	3.7	487	1801	4.0	< 0.001	No
MSC01-091823	09/19/23	1	3.3	1,425	4702	3.5	< 0.001	No
MSC02-091823	09/19/23	2	3.8	1,426	5418	3.0	< 0.000	No
MSC01-091923	09/20/23	1	3.9	1,441	5619	2.5	< 0.000	No
MSC02-091923	09/20/23	2	3.6	1,439	5180	1.5	< 0.001	No
MSC01-092023	09/21/23	1	3.5	1,437	5029	7.0	0.001	No
MSC02-092023	09/21/23	2	3.6	1,439	5180	2.5	< 0.001	No
MSC01-092123	09/21/23 <sup>2</sup>	1	3.4	490	1666	5.0	< 0.002	No
MSC02-092123	09/21/23 <sup>2</sup>	2	3.5	466	1631	6.0	0.002	No
MSC01-092523	09/26/23	1	3.6	1,451	5223	9.5	0.001	No
MSC02-092523	09/26/23	2	3.5	1,455	5092	3.0	< 0.001	No
MSC01-092623	09/27/23	1	3.5	1,452	5082	7.0	0.001	No
MSC02-092623	09/27/23	2	3.6	1,450	5220	3.5	< 0.001	No
MSC01-092723	09/28/23	1	3.6	1,419	5108	2.0	< 0.001	No
MSC02-092723	09/28/23	2	3.7	1,420	5254	5.5	0.001	No
MSC01-092823	09/28/23 <sup>2</sup>	1	3.3	442	1458	2.5	< 0.002	No
MSC02-092823	09/28/23 <sup>2</sup>	2	3.6	419	1508	10.5	0.003	No
MSC01-100223	10/03/23	1	3.5	1,431	5008	10.0	0.001	No
MSC02-100223	10/03/23	2	3.5	1,431	5008	9.5	0.001	No
MSC01-100323	10/04/23	1	3.0	1,444	4332	4.5	< 0.001	No
MSC02-100323	10/04/23	2	3.3	1,445	4768	7.0	0.001	No
MSC01-100423	10/05/23	1	3.3	1,439	4748	5.0	< 0.001	No
MSC02-100423	10/05/23	2	3.5	1,437	5029	6.0	0.001	No
MSC01-100523	10/05/23 <sup>2</sup>	1	3.5	458	1603	5.5	0.002	No
MSC02-100523	10/05/23 <sup>2</sup>	2	3.5	462	1617	6.5	0.002	No
MSC01-100923	10/10/23	1	3.4	1,400	4760	8.0	0.001	No
MSC02-100923	10/10/23	2	3.5	1,404	4914	3.0	< 0.001	No
MSC01-101023	10/11/23	1	3.5	1,446	5061	4.0	< 0.001	No
MSC02-101023	10/11/23	2	3.5	1,446	5061	13.0	0.001	No
MSC01-101123	10/12/23	1	3.4	1,434	4875	3.5	< 0.001	No
MSC02-101123	10/12/23	2	3.4	1,436	4882	3.0	< 0.001	No
MSC01-101223	10/12/23 <sup>2</sup>	1	3.2	499	1596	6.0	0.002	No
MSC02-101223	10/12/23 <sup>2</sup>	2	3.2	473	1513	7.0	0.002	No
MSC01-101623	10/17/23	1	3.6	1,434	5162	11.5	< 0.001	No
MSC02-101623	10/17/23	2	3.4	1,434	4875	3.0	< 0.001	No
MSC01-101723	10/18/23	1	3.6	1,438	5176	5.0	< 0.001	No
MSC02-101723	10/18/23	2	3.3	1,438	4745	1.0	< 0.001	No
MSC01-101823	10/19/23	1	3.5	1,460	5110	3.5	< 0.001	No
MSC02-101823	10/19/23	2	3.3	1,454	4798	4.0	< 0.001	No
MSC01-101923	10/19/23 <sup>2</sup>	1	3.3	473	1560	8.5	0.003	No
MSC02-101923	10/19/23 <sup>2</sup>	2	3.3	434	1432	7.5	0.003	No

**Notes:**

<sup>1</sup>Sample "end" date indicates the date upon which sample collection ended.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

l/min = liters per minute

L = liter

min = minutes

fibers/cm<sup>3</sup> = fibers per cubic centimeter

< = below detection limit

**ATTACHMENT 3**  
**PARTICULATE MATTER, SMALLER THAN TEN MICRONS**  
**(PM10) MONITORING RESULTS**

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**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
GESPM101722-640	MSC01	12/7/22	1507.84	0.011	0.0040	4.000	5,000	No	50	No
GESPM101722-641	MSC02	12/7/22	1621.97	0.015						
GESPM101722-642	MSC01	12/8/22	1591.23	0.013	0.0000	0.000	5,000	No	50	No
GESPM101722-643	MSC02	12/8/22	1712.70	0.013						
GESPM101722-644	MSC01	12/8/22 <sup>2</sup>	442.87	0.014	0.005	5.000	5,000	No	50	No
GESPM101722-645	MSC02	12/8/22 <sup>2</sup>	480.23	0.019						
GESPM101722-647	MSC01	12/13/22	1614.39	0.013	0.0030	3.000	5,000	No	50	No
GESPM101722-648	MSC02	12/13/22	1709.14	0.016						
GESPM101722-649	MSC01	12/14/22	1629.43	0.014	0.002	2.000	5,000	No	50	No
GESPM101722-650	MSC02	12/14/22	1729.85	0.016						
GESPM101722-651	MSC01	12/15/22	1635.44	0.024	0.002	2.000	5,000	No	50	No
GESPM101722-652	MSC02	12/15/22	1716.53	0.022						
PM113022-03	MSC01	12/20/22	1668.08	0.024 J+	0.001	1.000	5,000	No	50	No
PM113022-05	MSC02	12/20/22	1694.70	0.025 J+						
PM113022-07	MSC01	12/21/22	1698.07	0.030 J+	0.001	1.000	5,000	No	50	No
PM113022-09	MSC02	12/21/22	1704.09	0.029 J+						
PM113022-11	MSC01	12/22/22	1525.86	0.102 J+	0.0176	17.648	5,000	No	50	No
PM113022-13	MSC02	12/22/22	1619.58	0.085 J+						
PM113022-17	MSC01	1/18/23	1522.60	0.00985157	-0.0046	-4.588	5,000	No	50	No
PM113022-19	MSC02	1/18/23	1572.10	0.01443929						
PM113022-21	MSC01	1/19/23	1639.48	0.00640447	0.005821	5.821	5,000	No	50	No
PM113022-23	MSC02	1/19/23	1644.10	0.01222553						
PM113022-25	MSC01	1/19/23 <sup>2</sup>	400.35	0.37716998 J	-0.3744	-374.429	5,000	No	50	No
PM113022-27	MSC02	1/19/23 <sup>2</sup>	364.82	< 0.00274108						
PM113022-29	MSC01	1/24/23	1655.00	0.01111782	-0.002405	-2.405	5,000	No	50	No
PM113022-31	MSC02	1/24/23	1663.87	0.01352269						
PM113022-35	MSC01	1/25/23	1657.99	0.01827514	0.002547	2.547	5,000	No	50	No
PM113022-37	MSC02	1/25/23	1656.86	0.02082252						
PM113022-49	MSC01	2/02/23	499.45	0.02322555	0.001430	1.430	5,000	No	50	No

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM113022-51	MSC02	2/02/23	515.09	0.02465589						
PM113022-55	MSC01	2/07/23	1625.88	0.01260856	-0.005	-4.671	5,000	No	50	No
PM113022-57	MSC02	2/07/23	1631.96	0.01727984						
PM113022-59	MSC01	2/08/23	1671.29	0.01537734	-0.0687	-68.651	5,000	No	50	No
PM113022-61	MSC02	2/08/23	1666.11	0.08402807						
PM113022-63	MSC01	2/09/23	1627.76	0.01947462	-0.001198	-1.198	5,000	No	50	No
PM113022-65	MSC02	2/09/23	1499.60	0.02067218						
PM112922-22	MSC01	2/09/23 <sup>2</sup>	447.97	0.01674219	0.0053	5.314	5,000	No	50	No
PM112922-24	MSC02	2/09/23 <sup>2</sup>	446.26	0.01142832						
PM011823-01	MSC01	2/14/23	1246.37	0.02302687	0.002	2.063	5,000	No	50	No
PM011823-03	MSC02	2/14/23	1642.07	0.02509028						
PM011823-05	MSC01	2/15/23	1264.50	0.00632661	0.0055	5.531	5,000	No	50	No
PM011823-07	MSC02	2/15/23	1568.66	0.01185725						
PM011823-09	MSC01	2/16/23	1629.47	0.01178297	-3.101E-05	-0.031	5,000	No	50	No
PM011823-11	MSC02	2/16/23	1633.77	0.01175196						
PM011823-13	MSC01	2/16/23 <sup>2</sup>	426.46	0.01055199	0.0018	1.767	5,000	No	50	No
PM011823-15	MSC02	2/16/23 <sup>2</sup>	446.47	0.01231886						
PM012323-02	MSC01	2/21/23	1637.36	0.02198661	0.005	4.783	5,000	No	50	No
PM012323-04	MSC02	2/21/23	1613.80	0.02676912						
PM012323-06	MSC01	2/22/23	1644.55	0.02389711	0.0188	18.770	5,000	No	50	No
PM012323-08	MSC02	2/22/23	1642.96	0.04266689						
PM012323-10	MSC01	2/23/23	1623.56	0.00856143	0.00271	2.709	5,000	No	50	No
PM012323-12	MSC02	2/23/23	1597.08	0.01127057						
PM011823-18	MSC01	2/23/23 <sup>2</sup>	557.83	0.00681211	0.0003	0.272	5,000	No	50	No
PM011823-20	MSC02	2/23/23 <sup>2</sup>	550.56	0.0070837						
PM013023-17	MSC01	3/02/23	1634.24	0.01994811	-0.0064	-6.444	5,000	No	50	No
PM013023-19	MSC02	3/02/23	1606.97	0.01350367						
PM013123-51	MSC01	3/02/23 <sup>2</sup>	482.00	0.00497925	0.0104	10.425	5,000	No	50	No
PM013123-53	MSC02	3/02/23 <sup>2</sup>	480.38	0.01540447						

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM013123-55	MSC01	3/07/23	1633.72	0.0036726	0.003645	3.645	5,000	No	50	No
PM013123-57	MSC02	3/07/23	1612.46	0.00731801 J						
PM020323-11	MSC01	3/08/23	1632.65	0.00526751	0.002376	2.376	5,000	No	50	No
PM020323-13	MSC02	3/08/23	1609.23	0.00764341						
PM020323-15	MSC01	3/09/23	1683.06	0.00659513	0.003744	3.744	5,000	No	50	No
PM020323-17	MSC02	3/09/23	1644.17	0.01033956						
PM020323-19	MSC01	3/09/23 <sup>2</sup>	407.20	0.00589391	0.003109	3.109	5,000	No	50	No
PM020323-21	MSC02	3/09/23 <sup>2</sup>	433.17	0.00900339						
PM020323-25	MSC01	3/14/23	1643.65	0.00249445	0.004424	4.424	5,000	No	50	No
PM020323-27	MSC02	3/14/23	1633.23	0.00691881						
PM020323-29	MSC01	3/16/23	1699.08	0.00976999	0.005419	5.419	5,000	No	50	No
PM020323-31	MSC02	3/16/23	1626.15	0.01518925						
PM020323-33	MSC01	3/16/23 <sup>2</sup>	476.42	0.0182612	-0.008124	-8.124	5,000	No	50	No
PM020623-01	MSC02	3/16/23 <sup>2</sup>	493.24	0.01013705						
PM020623-05	MSC01	3/21/23	1658.27	0.00976922	0.003198	3.198	5,000	No	50	No
PM020623-11	MSC02	3/21/23	1634.89	0.01296723						
PM020623-13	MSC01	3/23/23	1545.09	0.00744293	0.003679	3.679	5,000	No	50	No
PM020623-15	MSC02	3/23/23	1564.49	0.01112184						
PM020623-17	MSC01	3/23/23 <sup>2</sup>	490.88	0.0077412	0.005404	5.404	5,000	No	50	No
PM020623-19	MSC02	3/23/23 <sup>2</sup>	479.26	0.01314527						
PM020223-22	MSC01	3/28/23	1619.55	0.0089531	0.002030	2.030	5,000	No	50	No
PM020223-24	MSC02	3/28/23	1593.35	0.01098315						
PM020223-26	MSC01	3/30/23 <sup>2</sup>	514.11	0.00213962	-0.008530	-8.530	5,000	No	50	No
PM020223-28	MSC02	3/30/23 <sup>2</sup>	515.50	0.01066925						
PM020223-38	MSC01	4/04/23	1685.57	0.01595899	-0.003060	-3.060	5,000	No	50	No
PM020223-40	MSC02	4/04/23	1620.26	0.01289916						
PM020323-63	MSC01	4/05/23	1668.68	0.00946856	0.002919	2.919	5,000	No	50	No
PM020323-65	MSC02	4/05/23	1638.71	0.01238779						
PM020323-67	MSC01	4/06/23	1665.86	0.01134549	0.003470	3.470	5,000	No	50	No
PM020323-69	MSC02	4/06/23	1626.72	0.01481509						

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM020923-01	MSC01	4/06/23 <sup>2</sup>	554.30	0.00847916	0.003467	3.467	5,000	No	50	No
PM020923-03	MSC02	4/06/23 <sup>2</sup>	544.12	0.01194589						
PM021523-32	MSC01	4/11/23	1689.30	0.00384775	0.004132	4.132	5,000	No	50	No
PM021523-34	MSC02	4/11/23	1641.63	0.00797987						
PM020823-02	MSC01	4/12/23	1640.30	0.01450954	0.004268	4.268	5,000	No	50	No
PM020823-04	MSC02	4/12/23	1592.36	0.01877716						
PM020823-06	MSC01	4/13/23	1658.16	0.01658465	0.005463	5.463	5,000	No	50	No
PM020823-08	MSC02	4/13/23	1628.30	0.02204753						
PM020823-10	MSC01	4/13/23 <sup>2</sup>	539.42	0.01149383	-0.002648	-2.648	5,000	No	50	No
PM020823-12	MSC02	4/13/23 <sup>2</sup>	523.28	0.01414157						
PM021623-17	MSC01	4/18/23	1668.59	0.01114714	0.003765	3.765	5,000	No	50	No
PM021623-19	MSC02	4/18/23	1616.16	0.01491189						
PM021623-21	MSC01	4/19/23	1628.03	0.01111773	0.002891	2.891	5,000	No	50	No
PM021623-23	MSC02	4/19/23	1591.82	0.01400912						
PM021623-25	MSC01	4/20/23	1636.76	0.01515189	0.002320	2.320	5,000	No	50	No
PM022023-01	MSC02	4/20/23	1602.54	0.01747226						
PM022023-03	MSC01	4/20/23 <sup>2</sup>	519.91	0.02038814	0.003263	3.263	5,000	No	50	No
PM022023-05	MSC02	4/20/23 <sup>2</sup>	583.49	0.02365079						
PM030323-30	MSC01	4/25/23	1648.32	0.05156766	-0.021976	-21.976	5,000	No	50	No
PM030323-32	MSC02	4/25/23	1615.30	0.02959203						
PM030323-34	MSC01	4/26/23	1657.62	0.02684572	-0.001260	-1.260	5,000	No	50	No
PM030323-36	MSC02	4/26/23	1621.99	0.02558585						
PM030323-38	MSC01	4/27/23	1655.85	0.02306972	-0.008294	-8.294	5,000	No	50	No
PM030323-40	MSC02	4/27/23	1631.01	0.01477612						
PM030923-02	MSC01	4/27/23 <sup>2</sup>	520.43	0.02497934	-0.000148	-0.148	5,000	No	50	No
PM030923-04	MSC02	4/27/23 <sup>2</sup>	471.18	0.02483127						
PM031223-03	MSC01	5/02/23	1684.21	0.03117188	-0.015939	-15.939	5,000	No	50	No
PM031223-05	MSC02	5/02/23	1634.60	0.01523308						
PM031223-07	MSC01	5/03/23	1647.28	0.00516002	0.001409	1.409	5,000	No	50	No

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM031223-09	MSC02	5/03/23	1644.00	0.00656934						
PM031223-11	MSC01	5/04/23 <sup>2</sup>	578.40	0.00639696 J+	0.005374	5.374	5,000	No	50	No
PM031223-13	MSC02	5/04/23 <sup>2</sup>	535.20	0.0117713						
PM031223-17	MSC01	5/09/23	1646.24	0.01099475	0.003592	3.592	5,000	No	50	No
PM031423-01	MSC02	5/09/23	1617.91	0.01458672						
PM031423-03	MSC01	5/10/23	1657.77	0.01007377	0.002382	2.382	5,000	No	50	No
PM031423-05	MSC02	5/10/23	1629.73	0.01245605						
PM031423-07	MSC01	5/11/23	1691.54	0.01075943	0.003199	3.199	5,000	No	50	No
PM031423-09	MSC02	5/11/23	1619.07	0.01395863						
PM031423-11	MSC01	5/11/23 <sup>2</sup>	507.13	0.01380317	0.003840	3.840	5,000	No	50	No
PM031423-13	MSC02	5/11/23 <sup>2</sup>	538.44	0.01764356						
PM031523-20	MSC01	5/16/23	1708.90	0.00544210	0.003596	3.596	5,000	No	50	No
PM031523-22	MSC02	5/16/23	1648.54	0.00903830						
PM031523-24	MSC01	5/17/23	1622.55	0.00751903	0.003741	3.741	5,000	No	50	No
PM031523-26	MSC02	5/17/23	1589.73	0.01125977						
PM031523-28	MSC01	5/18/23	1668.17	0.00791286	0.004036	4.036	5,000	No	50	No
PM031523-30	MSC02	5/18/23	1631.92	0.01194912						
PM031523-32	MSC01	5/18/23 <sup>2</sup>	484.26	0.00433651	0.009795	9.795	5,000	No	50	No
PM031523-34	MSC02	5/18/23 <sup>2</sup>	474.13	0.01413115						
PM030323-10	MSC01	5/23/23	1704.60	0.00874105	0.028104	28.104	5,000	No	50	No
PM030923-06	MSC02	5/23/23	1623.00	0.03684535						
PM030923-08	MSC01	5/24/23	1581.93	0.02642342	0.007307	7.307	5,000	No	50	No
PM030923-10	MSC02	5/24/23	1612.80	0.03373016						
PM030923-12	MSC01	5/25/23	1568.80	0.01721061	0.007248	7.248	5,000	No	50	No
PM030923-14	MSC02	5/25/23	1631.31	0.02445887						
PM030923-16	MSC01	5/25/23 <sup>2</sup>	532.95	0.01200863	0.007579	7.579	5,000	No	50	No
PM030923-18	MSC02	5/25/23 <sup>2</sup>	520.74	0.01958751						
PM031223-32	MSC01	5/31/23	1649.15	0.00782221 J+	0.000316	0.316	5,000	No	50	No
PM031223-34	MSC02	5/31/23	1622.04	0.0081379 J+						

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM031223-36	MSC01	6/01/23	1666.71	0.02225942 J+	0.007277	7.277	5,000	No	50	No
PM031223-38	MSC02	6/01/23	1604.78	0.02953676 J+						
PM031223-40	MSC01	6/01/23 <sup>2</sup>	572.70	0.02514405 J+	0.003676	3.676	5,000	No	50	No
PM031223-42	MSC02	6/01/23 <sup>2</sup>	551.70	0.02882001 J+						
PM032123-14	MSC01	6/06/23	1644.60	0.01015444	0.003082	3.082	5,000	No	50	No
PM032123-16	MSC02	6/06/23	1631.90	0.01323611						
PM032123-18	MSC01	6/07/23	1645.89	0.00662256	0.002109	2.109	5,000	No	50	No
PM032123-20	MSC02	6/07/23	1614.85	0.00873146						
PM032123-22	MSC01	6/08/23	1672.94	0.00992265	0.000427	0.427	5,000	No	50	No
PM032123-24	MSC02	6/08/23	1642.62	0.01034932						
PM032123-26	MSC01	6/08/23 <sup>2</sup>	370.51	0.01268522 J+	0.000646	0.646	5,000	No	50	No
PM032123-28	MSC02	6/08/23 <sup>2</sup>	457.56	0.01333158 J+						
PM032223-08	MSC01	6/13/23	1660.73	0.00572038	0.001234	1.234	5,000	No	50	No
PM032223-10	MSC02	6/13/23	1624.88	0.00695436						
PM032223-12	MSC01	6/14/23	1641.30	0.00408213	0.003574	3.574	5,000	No	50	No
PM032223-14	MSC02	6/14/23	1606.50	0.0076564						
PM032223-16	MSC01	6/15/23	1657.98	0.00971061	0.003722	3.722	5,000	No	50	No
PM032223-18	MSC02	6/15/23	1630.41	0.0134322						
PM032223-20	MSC01	6/15/23 <sup>2</sup>	416.70	0.01031917 J+	-0.000189	-0.189	5,000	No	50	No
PM032223-22	MSC02	6/15/23 <sup>2</sup>	390.16	0.01050851 J+						
PM032423-26	MSC01	6/20/23	1608.77	0.01411016	0.002962	2.962	5,000	No	50	No
PM032423-24	MSC02	6/20/23	1593.25	0.01707202						
PM032423-08	MSC01	6/21/23	1668.87	0.0138417	0.003612	3.612	5,000	No	50	No
PM032423-10	MSC02	6/21/23	1638.58	0.01745414						
PM032423-12	MSC01	6/22/23	1659.03	0.01374297	0.004384	4.384	5,000	No	50	No
PM032423-14	MSC02	6/22/23	1638.40	0.01812744						
PM032423-16	MSC01	6/22/23 <sup>2</sup>	577.80	0.01574939	0.002567	2.567	5,000	No	50	No
PM032423-18	MSC02	6/22/23 <sup>2</sup>	562.33	0.01831665						
PM031623-20	MSC01	6/27/23	1634.93	0.00868539	0.002608	2.608	5,000	No	50	No

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM031623-22	MSC02	6/27/23	1611.62	0.01129298						
PM031623-24	MSC01	6/28/23	1656.32	0.00652048	0.002111	2.111	5,000	No	50	No
PM031623-26	MSC02	6/28/23	1633.47	0.00863193						
PM031623-28	MSC01	6/29/23	1655.66	0.00567749 J+	0.002041	2.041	5,000	No	50	No
PM031623-30	MSC02	6/29/23	1658.40	0.00771828						
PM031623-32	MSC01	6/29/23 <sup>2</sup>	390.12	0.01256024 J+	-0.000042	-0.042	5,000	No	50	No
PM031623-34	MSC02	6/29/23 <sup>2</sup>	365.02	0.01260205 J+						
PM032023-06	MSC01	7/06/23	1651.41	0.00932536	0.003760	3.760	5,000	No	50	No
PM032023-08	MSC02	7/06/23	1620.08	0.01308577						
PM032023-10	MSC01	7/06/23 <sup>2</sup>	585.42	0.01161559	0.304645	304.645	5,000	No	50	Yes
PM032023-12	MSC02	7/06/23 <sup>2</sup>	550.18	0.31626013						
PM041823-52	MSC01	7/11/23	1611.21	0.00645478 J+	0.003492	3.492	5,000	No	50	No
PM041823-54	MSC02	7/11/23	1628.74	0.00994634						
PM041823-56	MSC01	7/12/23	1667.36	0.00779676 J+	0.002231	2.231	5,000	No	50	No
PM041823-58	MSC02	7/12/23	1645.39	0.01002802						
PM041823-60	MSC01	7/13/23	1683.01	0.00594174 J+	0.002578	2.578	5,000	No	50	No
PM041823-62	MSC02	7/13/23	1666.73	0.00851968 J+						
PM041823-64	MSC01	7/13/23 <sup>2</sup>	559.46	0.00446859 J+	0.004396	4.396	5,000	No	50	No
PM041823-66	MSC02	7/13/23 <sup>2</sup>	541.46	0.00886492 J+						
PM042123-48	MSC01	7/18/23	1669.18	0.02414359	0.003596	3.596	5,000	No	50	No
PM042123-50	MSC02	7/18/23	1636.63	0.02773993						
PM042123-52	MSC01	7/19/23	1645.15	0.01550011	0.002144	2.144	5,000	No	50	No
PM042123-54	MSC02	7/19/23	1643.64	0.01764377						
PM042123-56	MSC01	7/20/23	1662.51	0.0115488	0.002517	2.517	5,000	No	50	No
PM042123-58	MSC02	7/20/23	1649.38	0.01406589						
PM042123-60	MSC01	7/20/23 <sup>2</sup>	611.02	0.01603875	0.002500	2.500	5,000	No	50	No
PM042123-62	MSC02	7/20/23 <sup>2</sup>	582.55	0.01853918						
PM042123-13	MSC01	7/25/23	1625.56	0.00701297	0.002352	2.352	5,000	No	50	No
PM042123-15	MSC02	7/25/23	1612.31	0.00936544						

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM042123-17	MSC01	7/26/23	1668.13	0.01097037	0.001665	1.665	5,000	No	50	No
PM042123-19	MSC02	7/26/23	1661.98	0.01263553						
PM042123-21	MSC01	7/27/23	1652.89	0.02184053	0.002423	2.423	5,000	No	50	No
PM042123-23	MSC02	7/27/23	1636.19	0.02426369						
PM042123-25	MSC01	7/27/23 <sup>2</sup>	594.65	0.02539309	0.005221	5.221	5,000	No	50	No
PM042123-27	MSC02	7/27/23 <sup>2</sup>	561.83	0.03061424						
PM041223-19	MSC01	8/01/23	1623.80	0.01989161	0.001942	1.942	5,000	No	50	No
PM041223-21	MSC02	8/01/23	1603.03	0.02183365						
PM041223-23	MSC01	8/02/23	1637.88	0.00860869	0.000685	0.685	5,000	No	50	No
PM041223-25	MSC02	8/02/23	1624.80	0.00929345						
PM041223-27	MSC01	8/03/23	1653.97	0.00785988	0.003868	3.868	5,000	No	50	No
PM041223-29	MSC02	8/03/23	1637.16	0.01172763						
PM041223-31	MSC01	8/03/23 <sup>2</sup>	611.72	0.01193356	0.007462	7.462	5,000	No	50	No
PM041223-33	MSC02	8/03/23 <sup>2</sup>	582.60	0.01939581						
PM041623-14	MSC01	8/08/23	1657.57	0.01327244	0.007663	7.663	5,000	No	50	No
PM041623-16	MSC02	8/08/23	1643.16	0.02093527						
PM041623-18	MSC01	8/09/23	1666.12	0.00768252	0.002819	2.819	5,000	No	50	No
PM041623-20	MSC02	8/09/23	1656.95	0.01050122						
PM041623-22	MSC01	8/10/23	1650.22	0.00436305 J+	0.003511	3.511	5,000	No	50	No
PM041623-24	MSC02	8/10/23	1638.33	0.00787387						
PM041623-26	MSC01	8/10/23 <sup>2</sup>	485.76	0.0094697 J+	0.000337	0.337	5,000	No	50	No
PM041623-28	MSC02	8/10/23 <sup>2</sup>	448.68	0.00980654 J+						
PM042023-01	MSC01	8/15/23	1628.18	0.0063875	0.003284	3.284	5,000	No	50	No
PM042023-03	MSC02	8/15/23	1612.91	0.00967196						
PM042023-05	MSC01	8/16/23	1636.94	0.00665877	0.001825	1.825	5,000	No	50	No
PM042023-07	MSC02	8/16/23	1638.43	0.00848373						
PM042023-09	MSC01	8/17/23	1646.55	0.00455498 J+	0.003520	3.520	5,000	No	50	No
PM042023-11	MSC02	8/17/23	1659.44	0.00807501						
PM042023-13	MSC01	8/17/23 <sup>2</sup>	564.21	0.00833023 J+	0.005658	5.658	5,000	No	50	No

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM042023-15	MSC02	8/17/23 <sup>2</sup>	543.30	0.01398859 J+						
PM042023-17	MSC01	8/22/23	1642.95	0.01192976	0.008333	8.333	5,000	No	50	No
PM042023-19	MSC02	8/22/23	1648.38	0.02026232						
PM042023-21	MSC01	8/23/23	1665.28	0.01417179	0.003490	3.490	5,000	No	50	No
PM042023-23	MSC02	8/23/23	1641.97	0.01766171						
PM042023-25	MSC01	8/24/23	1648.38	0.01977699	0.003558	3.558	5,000	No	50	No
PM042023-27	MSC02	8/24/23	1641.31	0.02333502						
PM042023-29	MSC01	8/24/23 <sup>2</sup>	569.86	0.02439196	0.003011	3.011	5,000	No	50	No
PM051123-51	MSC02	8/24/23 <sup>2</sup>	540.08	0.02740335						
PM051623-01	MSC01	8/29/23	1607.35	0.02258376	0.003711	3.711	5,000	No	50	No
PM051623-03	MSC02	8/29/23	1589.69	0.02629443						
PM051623-05	MSC01	8/30/23	1662.17	0.02653158	0.004340	4.340	5,000	No	50	No
PM051623-07	MSC02	8/30/23	1619.62	0.03087144						
PM051623-09	MSC01	8/31/23	1717.26	0.0434413	0.002060	2.060	5,000	No	50	No
PM051623-11	MSC02	8/31/23	1659.29	0.04550139						
PM051623-13	MSC01	8/31/23 <sup>2</sup>	460.02	0.03282466	0.003390	3.390	5,000	No	50	No
PM051623-15	MSC02	8/31/23 <sup>2</sup>	452.86	0.03621428						
PM042123-70	MSC01	9/06/23	1652.06	0.01646429	0.007458	7.458	5,000	No	50	No
PM042123-72	MSC02	9/06/23	1626.13	0.02392183						
PM042123-74	MSC01	9/07/23	1687.82	0.00787999	0.002721	2.721	5,000	No	50	No
PM042123-76	MSC02	9/07/23	1660.23	0.01060094						
PM042123-78	MSC01	9/07/23 <sup>2</sup>	492.05	0.01625851 J+	0.004938	4.938	5,000	No	50	No
PM042123-80	MSC02	9/07/23 <sup>2</sup>	476.49	0.02119667 J+						
PM050123-03	MSC01	9/12/23	1666.32	0.0153632	0.002684	2.684	5,000	No	50	No
PM050123-05	MSC02	9/12/23	1645.64	0.01804769						
PM050123-07	MSC01	9/13/23	1661.53	0.01679175	0.002592	2.592	5,000	No	50	No
PM050123-09	MSC02	9/13/23	1656.04	0.01938359						
PM050123-11	MSC01	9/14/23	1648.95	0.00873283	0.001832	1.832	5,000	No	50	No
PM050123-13	MSC02	9/14/23	1637.54	0.01056463						

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM050123-15	MSC01	9/14/23 <sup>2</sup>	576.36	0.0194323	0.000881	0.881	5,000	No	50	No
PM050123-17	MSC02	9/14/23 <sup>2</sup>	555.22	0.0185512 J+						
PM051223-58	MSC01	9/19/23	1653.34	0.01028222	0.002506	2.506	5,000	No	50	No
PM051223-60	MSC02	9/19/23	1634.38	0.01278772						
PM051223-62	MSC01	9/20/23	1663.90	0.0517459	0.005749	5.749	5,000	No	50	No
PM051223-64	MSC02	9/20/23	1647.09	0.05749534						
PM051223-66	MSC01	9/21/23	1653.00	0.05142166	0.001055	1.055	5,000	No	50	No
PM051223-68	MSC02	9/21/23	1636.91	0.05247692						
PM051223-70	MSC01	9/21/23 <sup>2</sup>	559.90	0.04965172	-0.005063	-5.063	5,000	No	50	No
PM051223-72	MSC02	9/21/23 <sup>2</sup>	530.02	0.05471492						
PM051723-05	MSC01	9/26/23	1655.74	0.00797227 J+	0.004062	4.062	5,000	No	50	No
PM051723-07	MSC02	9/26/23	1653.59	0.01203442						
PM051723-09	MSC01	9/27/23	1665.74	0.01218678	0.003142	3.142	5,000	No	50	No
PM051723-11	MSC02	9/27/23	1643.92	0.01532921						
PM051723-13	MSC01	9/28/23	1629.26	0.01767674	0.003640	3.640	5,000	No	50	No
PM051723-15	MSC02	9/28/23	1623.16	0.02131644						
PM051723-17	MSC01	9/28/23 <sup>2</sup>	512.57	0.02360653 J+	-0.004379	-4.379	5,000	No	50	No
PM051723-19	MSC02	9/28/23 <sup>2</sup>	475.24	0.02798586 J+						
PM042523-53	MSC01	10/03/23	1657.75	0.01236616	0.005378	5.378	5,000	No	50	No
PM042523-55	MSC02	10/03/23	1634.31	0.01774449						
PM042523-57	MSC01	10/04/23	1666.82	0.01775837	0.003848	3.848	5,000	No	50	No
PM042523-59	MSC02	10/04/23	1652.28	0.02160651						
PM042523-61	MSC01	10/05/23	1675.09	0.02387931	-0.002771	-2.771	5,000	No	50	No
PM042523-63	MSC02	10/05/23	1654.75	0.026665055						
PM042523-65	MSC01	10/05/23 <sup>2</sup>	530.66	0.02883202	-0.002231	-2.231	5,000	No	50	No
PM042523-67	MSC02	10/05/23 <sup>2</sup>	531.18	0.03106292						
PM051923-07	MSC01	10/10/23	1600.72	0.00668449 J+	-0.006110	-6.110	5,000	No	50	No
PM051923-09	MSC02	10/10/23	1610.13	0.012794						
PM072823-01	MSC01	10/11/23	1648.79	0.02438152	0.008823	8.823	5,000	No	50	No

**Attachment 3: Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (mg/m <sup>3</sup> )	PM10 Perimeter Concentration (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>1</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
PM072823-03	MSC02	10/11/23	1659.43	0.03320417						
PM072823-05	MSC01	10/12/23	1633.44	0.019713	0.002815	2.815	5,000	No	50	No
PM072823-07	MSC02	10/12/23	1620.22	0.0225278						
PM072823-09	MSC01	10/12/23 <sup>2</sup>	570.34	0.01841007 J+	0.001539	1.539	5,000	No	50	No
PM072823-11	MSC02	10/12/23 <sup>2</sup>	539.40	0.0168706 J+						
PM072823-15	MSC01	10/17/23	1614.18	0.00836338	0.001415	1.415	5,000	No	50	No
PM072823-17	MSC02	10/17/23	1636.30	0.00977816						
PM072823-19	MSC01	10/18/23	1661.86	0.00661909	0.002069	2.069	5,000	No	50	No
PM072823-21	MSC02	10/18/23	1634.44	0.00868799						
PM072823-23	MSC01	10/19/23	1676.45	0.02505294	-0.002874	-2.874	5,000	No	50	No
PM072823-25	MSC02	10/19/23	1668.63	0.0279271						
PM072823-27	MSC01	10/19/23 <sup>2</sup>	510.00	0.01960784	-0.021344	-21.344	5,000	No	50	No
PM072823-29	MSC02	10/19/23 <sup>2</sup>	505.47	0.04095199						

**Notes:**

<sup>1</sup>PM10 data is additionally compared to the recommended dust action level of 50 ug/m<sup>3</sup> for total PM10 in accordance with the DTSC Human and Ecological Risk Office (HERO) Parcel E Memorandum dated April 29, 2019 (DTSC, 2019) for informational purposes only.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

min = minutes

Cal/OSHA = California Division of Occupational Safety and Health

HERO = Human and Ecological Risk Office

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

J+ = estimated concentration biased high

**ATTACHMENT 4**  
**LEAD AND MANGANESE MONITORING RESULTS**

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**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
GESPM101722-640	MSC01	12/7/22	1507.84	0.0000017	No	0.0000032	No
GESPM101722-641	MSC02	12/7/22	1621.97	0.0000014	No	0.0000034	No
GESPM101722-642	MSC01	12/8/22	1591.23	0.0000009	No	0.0000028	No
GESPM101722-643	MSC02	12/8/22	1712.70	0.00000091	No	0.0000026 J	No
GESPM101722-644	MSC01	12/8/22 <sup>2</sup>	442.87	0.0000032	No	0.0000079	No
GESPM101722-645	MSC02	12/8/22 <sup>2</sup>	480.23	0.0000019 J	No	0.0000046	No
GESPM101722-647	MSC01	12/13/22	1614.39	0.0000012	No	0.0000027	No
GESPM101722-648	MSC02	12/13/22	1709.14	0.000001	No	0.0000023	No
GESPM101722-649	MSC01	12/14/22	1629.43	0.0000011	No	0.0000036	No
GESPM101722-650	MSC02	12/14/22	1729.85	0.00000095	No	0.0000027	No
GESPM101722-651	MSC01	12/15/22	1635.44	0.0000024	No	0.0000073	No
GESPM101722-652	MSC02	12/15/22	1716.53	0.000002	No	0.0000041	No
PM113022-03	MSC01	12/20/22	1668.08	< 0.00000839	No	< 0.00005875	No
PM113022-05	MSC02	12/20/22	1694.70	< 0.00000826	No	< 0.00005783	No
PM113022-07	MSC01	12/21/22	1698.07	< 0.00000824	No	< 0.00005771	No
PM113022-09	MSC02	12/21/22	1704.09	< 0.00000822	No	< 0.00005751	No
PM113022-11	MSC01	12/22/22	1525.86	< 0.00000918	No	< 0.00006423	No
PM113022-13	MSC02	12/22/22	1619.58	< 0.00000864	No	< 0.00006051	No
TSP113022-18	MSC01	1/18/23	1552.94	< 0.00000902	No	< 0.00006311	No
TSP113022-20	MSC02	1/18/23	1672.75	< 0.00000837	No	< 0.00005859	No
TSP113022-22	MSC01	1/19/23	1580.94	< 0.00000886	No	< 0.00006199	No
TSP113022-24	MSC02	1/19/23	1744.24	< 0.00000803	No	< 0.00005618	No
TSP113022-26	MSC01	1/19/23 <sup>2</sup>	397.82	< 0.00003519	No	< 0.00024634	No
TSP113022-28	MSC02	1/19/23 <sup>2</sup>	386.63	< 0.00003621	No	< 0.00025347	No
TSP113022-30	MSC01	1/24/23	1671.60	< 0.00000838	No	< 0.00005863	No
TSP113022-32	MSC02	1/24/23	1766.68	< 0.00000792	No	< 0.00005547	No
TSP113022-36	MSC01	1/25/23	1664.44	< 0.00000841	No	< 0.00005888	No
TSP113022-38	MSC02	1/25/23	1758.33	< 0.00000796	No	< 0.00005573	No
TSP113022-50	MSC01	2/02/23	500.30	< 0.00002798	No	< 0.00019588	No
TSP113022-52	MSC02	2/02/23	545.96	< 0.00002564	No	< 0.0001795	No
TSP113022-56	MSC01	2/07/23	1629.51	< 0.00000859 UJ	No	< 0.00006014	No
TSP113022-58	MSC02	2/07/23	1728.66	< 0.0000081 UJ	No	< 0.00005669	No
TSP113022-60	MSC01	2/08/23	1675.36	< 0.00000836 UJ	No	< 0.00005849	No
TSP113022-62	MSC02	2/08/23	1766.71	< 0.00000792 UJ	No	< 0.00005547	No
TSP113022-64	MSC01	2/09/23	1629.75	< 0.00000859 UJ	No	< 0.00006013	No
TSP113022-66	MSC02	2/09/23	1590.49	< 0.0000088 UJ	No	< 0.00006162	No
TSP112922-23	MSC01	2/09/23 <sup>2</sup>	447.38	< 0.00003129 UJ	No	< 0.00021905	No
TSP112922-25	MSC02	2/09/23 <sup>2</sup>	474.14	< 0.00002953 UJ	No	< 0.00020669	No
TSP011823-02	MSC01	2/14/23	1663.14	< 0.00000842	No	< 0.00005892	No
TSP011823-04	MSC02	2/14/23	1741.11	< 0.00000804	No	< 0.00005629	No
TSP011823-06	MSC01	2/15/23	1322.67	< 0.00001058	No	< 0.00007409	No
TSP011823-08	MSC02	2/15/23	1523.52	< 0.00000919	No	< 0.00006432	No
TSP011823-10	MSC01	2/16/23	1627.75	< 0.0000086	No	< 0.00006021	No
TSP011823-12	MSC02	2/16/23	1729.90	< 0.00000809	No	< 0.00005665	No
TSP011823-14	MSC01	2/16/23 <sup>2</sup>	424.73	< 0.00003296	No	< 0.00023073	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP011823-16	MSC02	2/16/23 <sup>2</sup>	472.40	< 0.00002964	No	< 0.00020745	No
TSP012323-03	MSC01	2/21/23	1649.30	< 0.00000849	No	< 0.00005942	No
TSP012323-05	MSC02	2/21/23	1715.45	< 0.00000816	No	< 0.00005713	No
TSP012323-07	MSC01	2/22/23	1677.34	< 0.00000835	No	< 0.00005843	No
TSP012323-09	MSC02	2/22/23 <sup>3</sup>	732.84	0.00003084	No	< 0.00013373	No
TSP012323-11	MSC01	2/23/23	1631.81	< 0.00000858	No	< 0.00006006	No
TSP011823-17	MSC02	2/23/23	1676.16	< 0.00000835	No	< 0.00005847	No
TSP011823-19	MSC01	2/23/23 <sup>2</sup>	557.12	< 0.00002513	No	< 0.0001759	No
TSP011823-21	MSC02	2/23/23 <sup>2</sup>	585.02	< 0.00002393	No	< 0.00016752	No
TSP013023-18	MSC01	3/02/23	1630.46	< 0.00000859	No	< 0.00006011	No
TSP013023-20	MSC02	3/02/23	1707.28	< 0.0000082	No	< 0.0000574	No
TSP013123-52	MSC01	3/02/23 <sup>2</sup>	480.87	< 0.00002911	No	< 0.0002038	No
TSP013123-54	MSC02	3/02/23 <sup>2</sup>	514.50	< 0.00002721	No	< 0.00019048	No
TSP013123-56	MSC01	3/07/23	1643.67	< 0.00000852	No	< 0.00005962	No
TSP013123-58	MSC02	3/07/23 <sup>3</sup>	862.14	< 0.00001624	No	< 0.00011367	No
TSP020323-12	MSC01	3/08/23	1634.86	< 0.00000856	No	< 0.00005994	No
TSP020323-14	MSC02	3/08/23	1711.00	< 0.00000818	No	< 0.00005728	No
TSP020323-16	MSC01	3/09/23	1695.55	< 0.00000826	No	< 0.0000578	No
TSP020323-18	MSC02	3/09/23	1747.61	< 0.00000801	No	< 0.00005608	No
TSP020323-20	MSC01	3/09/23 <sup>2</sup>	404.96	< 0.00003457	No	< 0.000242	No
TSP020323-22	MSC02	3/09/23 <sup>2</sup>	456.94	< 0.00003064	No	< 0.00021447	No
TSP020323-26	MSC01	3/14/23	1655.51	< 0.00000846	No	< 0.0000592	No
TSP020323-28	MSC02	3/14/23	1739.40	< 0.00000805	No	< 0.00005634	No
TSP020323-30	MSC01	3/16/23	1694.68	< 0.00000826	No	< 0.00005783	No
TSP020323-32	MSC02	3/16/23	1728.70	< 0.0000081	No	< 0.00005669	No
TSP020323-34	MSC01	3/16/23 <sup>2</sup>	480.10	< 0.00002916	No	< 0.00020412	No
TSP020623-02	MSC02	3/16/23 <sup>2</sup>	519.14	< 0.00002697	No	< 0.00018877	No
TSP020623-06	MSC01	3/21/23	1667.66	< 0.00000839	No	< 0.00005876	No
TSP020623-12	MSC02	3/21/23	1735.74	< 0.00000807	No	< 0.00005646	No
TSP020623-14	MSC01	3/23/23	1556.49	< 0.00000899	No	< 0.00006296	No
TSP020623-16	MSC02	3/23/23	1667.06	< 0.0000084	No	< 0.00005879	No
TSP020623-18	MSC01	3/23/23 <sup>2</sup>	466.67	< 0.00003	No	< 0.00021	No
TSP020623-20	MSC02	3/23/23 <sup>1,2</sup>	293.01	< 0.00004778	No	< 0.00033446	No
TSP020223-23	MSC01	3/28/23	1624.27	< 0.00000862	No	< 0.00006033	No
TSP020223-25	MSC02	3/28/23	1692.62	< 0.00000827	No	< 0.0000579	No
TSP020223-27	MSC01	3/30/23 <sup>2</sup>	514.18	< 0.00002723	No	< 0.00019059	No
TSP020223-29	MSC02	3/30/23 <sup>2</sup>	548.95	< 0.0000255	No	< 0.00017852	No
TSP020223-39	MSC01	4/04/23	1693.85	< 0.00000827	No	< 0.00005786	No
TSP020323-62	MSC02	4/04/23	1720.87	< 0.00000814	No	< 0.00005695	No
TSP020323-64	MSC01	4/05/23	1663.88	< 0.00000841	No	< 0.0000589	No
TSP020323-66	MSC02	4/05/23	1735.90	< 0.00000806	No	< 0.00005645	No
TSP020323-68	MSC01	4/06/23	1661.80	< 0.00000842	No	< 0.00005897	No
TSP020323-70	MSC02	4/06/23	1724.78	< 0.00000812	No	< 0.00005682	No
TSP020923-02	MSC01	4/06/23 <sup>2</sup>	554.40	< 0.00002525	No	< 0.00017677	No
TSP020923-04	MSC02	4/06/23 <sup>2</sup>	581.88	< 0.00002406	No	< 0.00016842	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP021523-33	MSC01	4/11/23	1698.82	< 0.00000824	No	< 0.00005769	No
TSP020823-01	MSC02	4/11/23	1761.73	< 0.00000795	No	< 0.00005563	No
TSP020823-03	MSC01	4/12/23	1629.85	< 0.00000859	No	< 0.00006013	No
TSP020823-05	MSC02	4/12/23	1688.62	< 0.00000829	No	< 0.00005804	No
TSP020823-07	MSC01	4/13/23	1650.61	< 0.00000848	No	< 0.00005937	No
TSP020823-09	MSC02	4/13/23	1387.10	< 0.00001009	No	< 0.00007065	No
TSP020823-11	MSC01	4/13/23 <sup>2</sup>	534.94	< 0.00002617	No	< 0.0001832	No
TSP020823-13	MSC02	4/13/23 <sup>2</sup>	552.25	< 0.00002535	No	< 0.00017746	No
TSP021623-18	MSC01	4/18/23	1675.38	< 0.00000836	No	< 0.00005849	No
TSP021623-20	MSC02	4/18/23	1714.56	< 0.00000817	No	< 0.00005716	No
TSP021623-22	MSC01	4/19/23	1626.92	< 0.00000861	No	< 0.00006024	No
TSP021623-24	MSC02	4/19/23	1692.11	< 0.00000827	No	< 0.00005792	No
TSP021623-26	MSC01	4/20/23	1616.86	< 0.00000866	No	< 0.00006061	No
TSP022023-02	MSC02	4/20/23	1701.84	< 0.00000823	No	< 0.00005758	No
TSP022023-04	MSC01	4/20/23 <sup>2</sup>	522.60	< 0.00002679	No	< 0.00018752	No
TSP022023-06	MSC02	4/20/23 <sup>2</sup>	619.33	< 0.00002261	No	< 0.00015824	No
TSP030323-31	MSC01	4/25/23	1659.15	0.00000982	No	0.00008559	No
TSP030323-33	MSC02	4/25/23	1711.83	< 0.00000818	No	< 0.00005725	No
TSP030323-35	MSC01	4/26/23	1654.76	< 0.00000846	No	< 0.00005922	No
TSP030323-37	MSC02	4/26/23	1722.56	< 0.00000813	No	< 0.00005689	No
TSP030323-39	MSC01	4/27/23	1661.46	< 0.00000843	No	< 0.00005898	No
TSP030923-01	MSC02	4/27/23 <sup>1</sup>	776.68	< 0.00001803	No	< 0.00012618	No
TSP030923-03	MSC01	4/27/23 <sup>2</sup>	525.64	< 0.00002663	No	< 0.00018644	No
TSP030923-05	MSC02	4/27/23 <sup>2</sup>	504.07	< 0.00002777	No	< 0.00019442	No
TSP031223-04	MSC01	5/02/23	1701.48	0.00000835	No	< 0.0000576	No
TSP031223-06	MSC02	5/02/23	1737.80	< 0.00000806	No	< 0.00005639	No
TSP031223-08	MSC01	5/03/23	1657.16	< 0.00000845	No	< 0.00005914	No
TSP031223-10	MSC02	5/03/23	1740.99	< 0.00000804	No	< 0.00005629	No
TSP031223-12	MSC01	5/04/23 <sup>2</sup>	578.57	< 0.0000242	No	< 0.00016938	No
TSP031223-14	MSC02	5/04/23 <sup>2</sup>	566.93	< 0.00002469	No	< 0.00017286	No
TSP031223-18	MSC01	5/09/23	1652.75	< 0.00000847	No	< 0.0000593	No
TSP031423-02	MSC02	5/09/23	1734.22	< 0.00000807	No	< 0.00005651	No
TSP031423-04	MSC01	5/10/23	1658.93	< 0.00000844	No	< 0.00005907	No
TSP031423-06	MSC02	5/10/23	1722.85	< 0.00000813	No	< 0.00005688	No
TSP031423-08	MSC01	5/11/23	1696.93	< 0.00000825	No	< 0.00005775	No
TSP031423-10	MSC02	5/11/23	1724.38	< 0.00000812	No	< 0.00005683	No
TSP031423-12	MSC01	5/11/23 <sup>2</sup>	512.83	< 0.0000273	No	< 0.0001911	No
TSP031423-14	MSC02	5/11/23 <sup>2</sup>	573.11	< 0.00002443	No	< 0.000171	No
TSP031523-21	MSC01	5/16/23	1718.40	< 0.00000815	No	< 0.00005703	No
TSP031523-23	MSC02	5/16/23	1708.00	< 0.0000082	No	< 0.00005738	No
TSP031523-25	MSC01	5/17/23	1630.39	< 0.00000859	No	< 0.00006011	No
TSP031523-27	MSC02	5/17/23	1688.85	< 0.00000829	No	< 0.00005803	No
TSP031523-29	MSC01	5/18/23	1679.35	< 0.00000834	No	< 0.00005836	No
TSP031523-31	MSC02	5/18/23	1733.33	< 0.00000808	No	< 0.00005654	No
TSP031523-33	MSC01	5/18/23 <sup>2</sup>	488.64	< 0.00002865	No	< 0.00020056	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP031523-35	MSC02	5/18/23 <sup>2</sup>	505.82	< 0.00002768	No	< 0.00019374	No
TSP030323-11	MSC01	5/23/23	1709.17	< 0.00000819	No	< 0.00005734	No
TSP030923-07	MSC02	5/23/23	1721.41	< 0.00000813	No	< 0.00005693	No
TSP030923-09	MSC01	5/24/23	1580.87	< 0.00000886	No	< 0.00006199	No
TSP030923-11	MSC02	5/24/23	1709.30	< 0.00000819	No	< 0.00005733	No
TSP030923-13	MSC01	5/25/23	1619.49	< 0.00000864	No	< 0.00006051	No
TSP030923-15	MSC02	5/25/23	1737.64	< 0.00000806	No	< 0.0000564	No
TSP030923-17	MSC01	5/25/23 <sup>2</sup>	534.21	< 0.00002621	No	< 0.00018345	No
TSP030923-19	MSC02	5/25/23 <sup>2</sup>	553.95	< 0.00002527	No	< 0.00017691	No
TSP031223-33	MSC01	5/31/23	1642.06	< 0.00000853	No	< 0.00005968	No
TSP031223-35	MSC02	5/31/23	1716.15	< 0.00000816	No	< 0.0000571	No
TSP031223-37	MSC01	6/01/23	1666.80	< 0.0000084	No	< 0.0000588	No
TSP031223-39	MSC02	6/01/23	1733.27	< 0.00000808	No	< 0.00005654	No
TSP031223-41	MSC01	6/01/23 <sup>2</sup>	575.36	< 0.00002433	No	< 0.00017033	No
TSP031223-43	MSC02	6/01/23 <sup>2</sup>	585.89	< 0.0000239	No	< 0.00016727	No
TSP032123-15	MSC01	6/06/23	1650.14	< 0.00000848	No	< 0.00005939	No
TSP032123-17	MSC02	6/06/23 <sup>1</sup>	913.80	< 0.00001532	No	< 0.00010724	No
TSP032123-19	MSC01	6/07/23	1645.12	< 0.00000851	No	< 0.00005957	No
TSP032123-21	MSC02	6/07/23	1718.75	< 0.00000815	No	< 0.00005702	No
TSP032123-23	MSC01	6/08/23	1669.41	< 0.00000839	No	< 0.0000587	No
TSP032123-25	MSC02	6/08/23	1742.99	< 0.00000803	No	< 0.00005623	No
TSP032123-27	MSC01	6/08/23 <sup>2</sup>	368.37	< 0.00003801	No	< 0.00026604	No
TSP032123-29	MSC02	6/08/23 <sup>2</sup>	481.50	< 0.00002908	No	< 0.00020353	No
TSP032223-09	MSC01	6/13/23	1666.70	< 0.0000084	No	< 0.0000588	No
TSP032223-11	MSC02	6/13/23	1724.26	< 0.00000812	No	< 0.00005684	No
TSP032223-13	MSC01	6/14/23	1638.49	< 0.00000854	No	< 0.00005981	No
TSP032223-15	MSC02	6/14/23	1699.87	< 0.00000824	No	< 0.00005765	No
TSP032223-17	MSC01	6/15/23	1660.87	< 0.00000843	No	< 0.00005901	No
TSP032223-19	MSC02	6/15/23	1725.22	< 0.00000811	No	< 0.0000568	No
TSP032223-21	MSC01	6/15/23 <sup>2</sup>	415.38	< 0.0000337	No	< 0.00023593	No
TSP032223-23	MSC02	6/15/23 <sup>2</sup>	409.09	< 0.00003422	No	< 0.00023956	No
TSP031623-01	MSC01	6/20/23	1598.40	< 0.00000876	No	< 0.00006131	No
TSP032423-25	MSC02	6/20/23	1691.60	< 0.00000828	No	< 0.00005793	No
TSP032423-09	MSC01	6/21/23	1670.69	< 0.00000838	No	< 0.00005866	No
TSP032423-11	MSC02	6/21/23	1565.11	< 0.00000895	No	< 0.00006262	No
TSP032423-13	MSC01	6/22/23	1655.41	< 0.00000846	No	< 0.0000592	No
TSP032423-15	MSC02	6/22/23	1733.52	< 0.00000808	No	< 0.00005653	No
TSP032423-17	MSC01	6/22/23 <sup>2</sup>	576.12	< 0.0000243	No	< 0.0001701	No
TSP032423-19	MSC02	6/22/23 <sup>2</sup>	592.80	< 0.00002362	No	< 0.00016532	No
TSP031623-21	MSC01	6/27/23	1638.68	< 0.00000854	No	< 0.0000598	No
TSP031623-23	MSC02	6/27/23	1709.23	< 0.00000819	No	< 0.00005734	No
TSP031623-25	MSC01	6/28/23	1650.36	< 0.00000848	No	< 0.00005938	No
TSP031623-27	MSC02	6/28/23	1726.32	< 0.00000811	No	< 0.00005677	No
TSP031623-29	MSC01	6/29/23	1644.56	< 0.00000851	No	< 0.00005959	No
TSP031623-31	MSC02	6/29/23	1762.76	< 0.00000794	No	< 0.00005559	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP032223-33	MSC01	6/29/23 <sup>2</sup>	388.84	< 0.000036	No	< 0.00025203	No
TSP031623-35	MSC02	6/29/23 <sup>2</sup>	385.72	< 0.0000363	No	< 0.00025407	No
TSP032023-07	MSC01	7/06/23	1657.74	< 0.00000845	No	< 0.00005912	No
TSP032023-09	MSC02	7/06/23	1726.90	< 0.00000811	No	< 0.00005675	No
TSP032023-11	MSC01	7/06/23 <sup>2</sup>	589.47	< 0.00002375	No	< 0.00016625	No
TSP032023-13	MSC02	7/06/23 <sup>2</sup>	590.35	< 0.00002371	No	< 0.000166	No
TSP041823-53	MSC01	7/11/23	1618.35	< 0.00000865	No	< 0.00006056	No
TSP041823-55	MSC02	7/11/23	1731.27	< 0.00000809	No	< 0.00005661	No
TSP041823-57	MSC01	7/12/23	1662.53	< 0.00000842	No	< 0.00005895	No
TSP041823-59	MSC02	7/12/23	1745.64	< 0.00000802	No	< 0.00005614	No
TSP041823-61	MSC01	7/13/23	1681.66	< 0.00000833	No	< 0.00005828	No
TSP041823-63	MSC02	7/13/23	1765.35	< 0.00000793	No	< 0.00005551	No
TSP041823-65	MSC01	7/13/23 <sup>2</sup>	556.36	< 0.00002516	No	< 0.00017614	No
TSP041823-67	MSC02	7/13/23 <sup>2</sup>	572.30	< 0.00002446	No	< 0.00017124	No
TSP042123-49	MSC01	7/18/23	1659.45	< 0.00000844	No	< 0.00005906	No
TSP042123-51	MSC02	7/18/23	1740.44	< 0.00000804	No	< 0.00005631	No
TSP042123-53	MSC01	7/19/23	1659.42	< 0.00000844	No	< 0.00005906	No
TSP042123-55	MSC02	7/19/23	1755.57	< 0.00000797	No	< 0.00005582	No
TSP042123-57	MSC01	7/20/23	1655.05	< 0.00000846	No	< 0.00005921	No
TSP042123-59	MSC02	7/20/23	1749.27	< 0.000008	No	< 0.00005602	No
TSP042123-61	MSC01	7/20/23 <sup>2</sup>	612.22	< 0.00002287	No	< 0.00016007	No
TSP042123-63	MSC02	7/20/23 <sup>2</sup>	617.13	< 0.00002269	No	< 0.0001588	No
TSP042123-14	MSC01	7/25/23	1633.53	< 0.00000857	No	< 0.00005999	No
TSP042123-16	MSC02	7/25/23	1711.34	< 0.00000818	No	< 0.00005727	No
TSP042123-18	MSC01	7/26/23	1680.55	< 0.00000833	No	< 0.00005831	No
TSP042123-20	MSC02	7/26/23	1763.35	< 0.00000794	No	< 0.00005558	No
TSP042123-22	MSC01	7/27/23	1589.42	< 0.00000881	No	< 0.00006166	No
TSP042123-24	MSC02	7/27/23	1736.19	< 0.00000806	No	< 0.00005645	No
TSP042123-26	MSC01	7/27/23 <sup>2</sup>	586.60	< 0.00002387	No	< 0.00016706	No
TSP042123-28	MSC02	7/27/23 <sup>2</sup>	598.13	< 0.00002341	No	< 0.00016384	No
TSP041223-20	MSC01	8/01/23	1646.87	< 0.0000085	No	< 0.00005951	No
TSP041223-22	MSC02	8/01/23	1701.27	< 0.00000823	No	< 0.0000576	No
TSP041223-24	MSC01	8/02/23	1639.56	< 0.00000854	No	< 0.00005977	No
TSP041223-26	MSC02	8/02/23	1720.38	< 0.00000814	No	< 0.00005696	No
TSP041223-28	MSC01	8/03/23	1657.85	< 0.00000844	No	< 0.00005911	No
TSP041223-30	MSC02	8/03/23	1735.31	< 0.00000807	No	< 0.00005647	No
TSP041223-32	MSC01	8/03/23 <sup>2</sup>	610.88	< 0.00002292	No	< 0.00016042	No
TSP041223-34	MSC02	8/03/23 <sup>2</sup>	621.16	< 0.00002254	No	< 0.00015777	No
TSP041623-15	MSC01	8/08/23	1664.80	< 0.00000841	No	< 0.00005887	No
TSP041623-17	MSC02	8/08/23	1743.15	< 0.00000803	No	< 0.00005622	No
TSP041623-19	MSC01	8/09/23	1680.65	< 0.00000833	No	< 0.00005831	No
TSP041623-21	MSC02	8/09/23	1758.02	< 0.00000796	No	< 0.00005574	No
TSP041623-23	MSC01	8/10/23	1664.64	< 0.00000841	No	< 0.00005887	No
TSP041623-25	MSC02	8/10/23	1738.90	< 0.00000805	No	< 0.00005636	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP041623-27	MSC01	8/10/23 <sup>2</sup>	487.23	< 0.00002873	No	< 0.00020114	No
TSP041623-29	MSC02	8/10/23 <sup>2</sup>	476.06	< 0.00002941	No	< 0.00020586	No
TSP042023-02	MSC01	8/15/23	1630.48	< 0.00000859	No	< 0.00006011	No
TSP042023-04	MSC02	8/15/23	1714.00	< 0.00000817	No	< 0.00005718	No
TSP042023-06	MSC01	8/16/23	1641.04	< 0.00000853	No	< 0.00005972	No
TSP042023-08	MSC02	8/16/23	1735.26	< 0.00000807	No	< 0.00005648	No
TSP042023-10	MSC01	8/17/23	1645.04	< 0.00000851	No	< 0.00005957	No
TSP042023-12	MSC02	8/17/23	1764.11	< 0.00000794	No	< 0.00005555	No
TSP042023-14	MSC01	8/17/23 <sup>2</sup>	558.45	< 0.00002507	No	< 0.00017549	No
TSP042023-16	MSC02	8/17/23 <sup>2</sup>	576.77	< 0.00002427	No	< 0.00016991	No
TSP042023-18	MSC01	8/22/23	1639.18	< 0.00000854	No	< 0.00005979	No
TSP042023-20	MSC02	8/22/23	1753.49	< 0.00000798	No	< 0.00005589	No
TSP042023-22	MSC01	8/23/23	1646.86	< 0.0000085	No	< 0.00005951	No
TSP042023-24	MSC02	8/23/23	1749.31	< 0.000008	No	< 0.00005602	No
TSP042023-26	MSC01	8/24/23	1668.15	< 0.00000839	No	< 0.00005875	No
TSP042023-28	MSC02	8/24/23	1743.00	< 0.00000803	No	< 0.00005622	No
TSP042023-30	MSC01	8/24/23 <sup>2</sup>	564.00	< 0.00002482	No	< 0.00017376	No
TSP051123-52	MSC02	8/24/23 <sup>2</sup>	570.89	< 0.00002452	No	< 0.00017166	No
TSP051623-02	MSC01	8/29/23	1605.03	< 0.00000872	No	< 0.00006106	No
TSP051623-04	MSC02	8/29/23	1685.09	< 0.00000831	No	< 0.00005816	No
TSP051623-06	MSC01	8/30/23	1657.79	< 0.00000844	No	< 0.00005911	No
TSP051623-08	MSC02	8/30/23	1735.38	< 0.00000807	No	< 0.00005647	No
TSP051623-10	MSC01	8/31/23	1702.15	< 0.00000822	No	< 0.00005757	No
TSP051623-12	MSC02	8/31/23	1761.08	< 0.00000795	No	< 0.00005565	No
TSP051623-14	MSC01	8/31/23 <sup>2</sup>	458.48	< 0.00003054	No	< 0.00021375	No
TSP051623-16	MSC02	8/31/23 <sup>2</sup>	483.13	< 0.00002898	No	< 0.00020284	No
TSP042123-71	MSC01	9/06/23	1650.38	< 0.00000848	No	< 0.00005938	No
TSP042123-73	MSC02	9/06/23	1724.18	< 0.00000812	No	< 0.00005684	No
TSP042123-75	MSC01	9/07/23	1676.08	< 0.00000835	No	< 0.00005847	No
TSP042123-77	MSC02	9/07/23	1754.73	< 0.00000798	No	< 0.00005585	No
TSP042123-79	MSC01	9/07/23 <sup>2</sup>	535.07	< 0.00002616	No	< 0.00018315	No
TSP042123-81	MSC02	9/07/23 <sup>2</sup>	551.11	< 0.0000254	No	< 0.00017782	No
TSP050123-04	MSC01	9/12/23	1651.22	< 0.00000848	No	< 0.00005935	No
TSP050123-06	MSC02	9/12/23	1740.06	< 0.00000805	No	< 0.00005632	No
TSP050123-08	MSC01	9/13/23	1658.11	< 0.00000844	No	< 0.0000591	No
TSP050123-10	MSC02	9/13/23	1754.92	< 0.00000798	No	< 0.00005584	No
TSP050123-12	MSC01	9/14/23	1646.66	< 0.0000085	No	< 0.00005951	No
TSP050123-14	MSC02	9/14/23	1734.38	< 0.00000807	No	< 0.0000565	No
TSP050123-16	MSC01	9/14/23 <sup>2</sup>	578.15	< 0.00002422	No	< 0.00016951	No
TSP050123-18	MSC02	9/14/23 <sup>2</sup>	588.15	< 0.0000238	No	< 0.00016662	No
TSP051223-59	MSC01	9/19/23	1642.31	< 0.00000852	No	< 0.00005967	No
TSP051223-61	MSC02	9/19/23	1729.17	< 0.0000081	No	< 0.00005667	No
TSP051223-63	MSC01	9/20/23	1658.18	< 0.00000844	No	< 0.0000591	No
TSP051223-65	MSC02	9/20/23	1742.81	< 0.00000803	No	< 0.00005623	No
TSP051223-67	MSC01	9/21/23	1645.81	< 0.00000851	No	< 0.00005955	No

**Attachment 4: Lead and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
				0.050 mg/m <sup>3</sup>		0.200 mg/m <sup>3</sup>	
TSP051223-69	MSC02	9/21/23	1733.42	< 0.00000808	No	< 0.00005654	No
TSP051223-71	MSC01	9/21/23 <sup>2</sup>	557.45	< 0.00002511	No	< 0.0001758	No
TSP051223-73	MSC02	9/21/23 <sup>2</sup>	562.79	< 0.00002488	No	< 0.00017413	No
TSP051723-06	MSC01	9/26/23	1651.15	< 0.00000848	No	< 0.00005935	No
TSP051723-08	MSC02	9/26/23	1747.70	< 0.00000801	No	< 0.00005607	No
TSP051723-10	MSC01	9/27/23	1665.33	< 0.00000841	No	< 0.00005885	No
TSP051723-12	MSC02	9/27/23	1745.81	< 0.00000802	No	< 0.00005613	No
TSP051723-14	MSC01	9/28/23	1629.13	< 0.00000859	No	< 0.00006015	No
TSP051723-16	MSC02	9/28/23	1720.58	< 0.00000814	No	< 0.00005696	No
TSP051723-18	MSC01	9/28/23 <sup>2</sup>	506.61	< 0.00002763	No	< 0.00019344	No
TSP051723-20	MSC02	9/28/23 <sup>2</sup>	504.09	< 0.00002777	No	< 0.00019441	No
TSP042523-54	MSC01	10/03/23	1655.09	< 0.00000846	No	< 0.00005921	No
TSP042523-56	MSC02	10/03/23	1732.09	< 0.00000808	No	< 0.00005658	No
TSP042523-58	MSC01	10/04/23	1658.87	< 0.00000844	No	< 0.00005908	No
TSP042523-56	MSC02	10/04/23	1751.40	< 0.00000799	No	< 0.00005596	No
TSP042523-62	MSC01	10/05/23	1661.94	0.00001065	No	< 0.00005897	No
TSP042523-64	MSC02	10/05/23	1754.94	< 0.00000798	No	< 0.00005584	No
TSP042523-66	MSC01	10/05/23 <sup>2</sup>	529.98	< 0.00002642	No	< 0.00018491	No
TSP042523-68	MSC02	10/05/23 <sup>2</sup>	566.19	< 0.00002473	No	< 0.00017309	No
TSP051923-08	MSC01	10/10/23	1601.09	< 0.00000874	No	< 0.00006121	No
TSP051923-10	MSC02	10/10/23	1698.84	< 0.00000824	No	< 0.00005769	No
TSP072823-02	MSC01	10/11/23	1644.70	< 0.00000851	No	< 0.00005959	No
TSP072823-04	MSC02	10/11/23	1762.08	< 0.00000795	No	< 0.00005562	No
TSP072823-06	MSC01	10/12/23	1626.58	< 0.00000861	No	< 0.00006025	No
TSP072823-08	MSC02	10/12/23	1699.40	< 0.00000824	No	< 0.00005767	No
TSP072823-10	MSC01	10/12/23 <sup>2</sup>	569.08	< 0.0000246	No	< 0.00017221	No
TSP072823-12	MSC02	10/12/23 <sup>2</sup>	574.50	< 0.00002437	No	< 0.00017058	No
TSP072823-16	MSC01	10/17/23	1644.79	< 0.00000851	No	< 0.00005958	No
TSP072823-18	MSC02	10/17/23	1734.79	< 0.00000807	No	< 0.00005649	No
TSP072823-20	MSC01	10/18/23	1639.75	< 0.00000854	No	< 0.00005977	No
TSP072823-22	MSC02	10/18/23	1731.36	< 0.00000809	No	< 0.0000566	No
TSP072823-24	MSC01	10/19/23	1675.90	< 0.00000835	No	< 0.00005848	No
TSP072823-26	MSC02	10/19/23	1768.44	< 0.00000792	No	< 0.00005542	No
TSP072823-28	MSC01	10/19/23 <sup>2</sup>	508.80	< 0.00002752	No	< 0.00019261	No
TSP072823-30	MSC02	10/19/23 <sup>2</sup>	533.93	< 0.00002622	No	< 0.00018354	No

**Notes:**

<sup>1</sup>Generator or sampler malfunction.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

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

mg/m<sup>3</sup> = milligrams per cubic meter

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

J+ = estimated concentration biased high

< = below detection limit

**ATTACHMENT 5**  
**TOTAL SUSPENDED PARTICULATES**  
**MONITORING RESULTS**

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### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
GESTSP101722-640	MSC01	12/7/22	1528.50	0.0154	0.004200	4.200	5,000	No	500	No
GESTSP101722-641	MSC02	12/7/22	1774.67	0.0196						
GESTSP101722-642	MSC01	12/8/22	1612.07	0.0217	0.0000	0.00	5,000	No	500	No
GESTSP101722-643	MSC02	12/8/22	1814.62	0.0217						
GESTSP101722-644	MSC01	12/8/22 <sup>2</sup>	450.97	0.0495	-0.0189	-18.90	5,000	No	500	No
GESTSP101722-645	MSC02	12/8/22 <sup>2</sup>	506.50	0.0306						
GESTSP101722-647	MSC01	12/13/22	1630.62	0.0248	-0.003500	-3.50	5,000	No	500	No
GESTSP101722-648	MSC02	12/13/22	1809.55	0.0213						
GESTSP101722-649	MSC01	12/14/22	1634.67	0.0304	-0.010	-10.40	5,000	No	500	No
GESTSP101722-650	MSC02	12/14/22	1835.58	0.020						
GESTSP101722-651	MSC01	12/15/22	1615.77	0.0549	0.024	24.00	5,000	No	500	No
GESTSP101722-652	MSC02	12/15/22	1823.15	0.0309						
TSP113022-04	MSC01	12/20/22	1682.18	0.0838	-0.0505	-50.50	5,000	No	500	No
TSP113022-06	MSC02	12/20/22	1798.10	0.0333						
TSP113022-08	MSC01	12/21/22	1720.20	0.0368	-0.0001	-0.10	5,000	No	500	No
TSP113022-10	MSC02	12/21/22	1808.38	0.0369						
TSP113022-12	MSC01	12/22/22	1537.10	0.0485	-0.0675	-67.50	5,000	No	500	No
TSP113022-14	MSC02	12/22/22	1720.94	0.116						
TSP113022-18	MSC01	1/18/23	1552.94	0.0164	-0.080400	-80.40	5,000	No	500	No
TSP113022-20	MSC02	1/18/23	1672.75	0.0968						
TSP113022-22	MSC01	1/19/23	1580.94	0.00816	0.0663	66.34	5,000	No	500	No
TSP113022-24	MSC02	1/19/23	1744.24	0.0745						
TSP113022-26	MSC01	1/19/23 <sup>2</sup>	397.82	0.00327 J	-0.00068	-0.68	5,000	No	500	No
TSP113022-28	MSC02	1/19/23 <sup>2</sup>	386.63	< 0.00259						
TSP113022-30	MSC01	1/24/23	1671.60	0.0235	-0.080500	-80.50	5,000	No	500	No
TSP113022-32	MSC02	1/24/23	1766.68	0.104						
TSP113022-36	MSC01	1/25/23	1664.44	0.035	0.070	70.00	5,000	No	500	No

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP113022-38	MSC02	1/25/23	1758.33	0.105						
TSP113022-50	MSC01	2/02/23	500.30	0.0372	-0.0053	-5.30	5,000	No	500	No
TSP113022-52	MSC02	2/02/23	545.96	0.0319						
TSP113022-56	MSC01	2/07/23	1629.51	0.0270	0.0018	1.80	5,000	No	500	No
TSP113022-58	MSC02	2/07/23	1728.66	0.0252						
TSP113022-60	MSC01	2/08/23	1675.36	0.0321	0.0067	6.70	5,000	No	500	No
TSP113022-62	MSC02	2/08/23	1766.71	0.0254						
TSP113022-64	MSC01	2/09/23	1629.75	0.0329	0.0035	3.50	5,000	No	500	No
TSP113022-66	MSC02	2/09/23	1590.49	0.0294						
TSP112922-23	MSC01	2/09/23 <sup>2</sup>	447.38	0.0329	0.008000	8.00	5,000	No	500	No
TSP112922-25	MSC02	2/09/23 <sup>2</sup>	474.14	0.0249						
TSP011823-02	MSC01	2/14/23	1663.14	0.045	-0.0035	-3.50	5,000	No	500	No
TSP011823-04	MSC02	2/14/23	1741.11	0.0415						
TSP011823-06	MSC01	2/15/23	1322.67	0.0213	0.0032	3.20	5,000	No	500	No
TSP011823-08	MSC02	2/15/23	1523.52	0.0245						
TSP011823-10	MSC01	2/16/23	1627.75	0.0286	-0.011500	-11.50	5,000	No	500	No
TSP011823-12	MSC02	2/16/23	1729.90	0.0171						
TSP011823-14	MSC01	2/16/23 <sup>2</sup>	424.73	0.0165	0.003	2.60	5,000	No	500	No
TSP011823-16	MSC02	2/16/23 <sup>2</sup>	472.40	0.0191						
TSP012323-03	MSC01	2/21/23	1649.30	0.0361	-0.0005	-0.50	5,000	No	500	No
TSP012323-05	MSC02	2/21/23	1715.45	0.0356						
TSP012323-07	MSC01	2/22/23	1677.34	0.0411	0.0799	79.90	5,000	No	500	No
TSP012323-09	MSC02	2/22/23 <sup>3</sup>	732.84	0.121						
TSP012323-11	MSC01	2/23/23	1631.81	0.0192	-0.0002	-0.20	5,000	No	500	No
TSP011823-17	MSC02	2/23/23	1676.16	0.019						
TSP011823-19	MSC01	2/23/23 <sup>2</sup>	557.12	0.0185	-0.0082	-8.20	5,000	No	500	No
TSP011823-21	MSC02	2/23/23 <sup>2</sup>	585.02	0.0103						

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP013023-18	MSC01	3/02/23	1630.46	0.0182	-0.0046	-4.60	5,000	No	500	No
TSP013023-20	MSC02	3/02/23	1707.28	0.0136						
TSP013123-52	MSC01	3/02/23 <sup>2</sup>	480.87	0.0206	0.0041	4.10	5,000	No	500	No
TSP013123-54	MSC02	3/02/23 <sup>2</sup>	514.50	0.0247						
TSP013123-56	MSC01	3/07/23	1643.67	0.0073	0.0033	3.30	5,000	No	500	No
TSP013123-58	MSC02	3/07/23 <sup>3</sup>	862.14	0.0106 J						
TSP020323-12	MSC01	3/08/23	1634.86	0.00924	0.0002	0.17	5,000	No	500	No
TSP020323-14	MSC02	3/08/23	1711.00	0.00941						
TSP020323-16	MSC01	3/09/23	1695.55	0.0117	0.0015	1.50	5,000	No	500	No
TSP020323-18	MSC02	3/09/23	1747.61	0.0132						
TSP020323-20	MSC01	3/09/23 <sup>2</sup>	404.96	0.0143	-0.0001	-0.10	5,000	No	500	No
TSP020323-22	MSC02	3/09/23 <sup>2</sup>	456.94	0.0142						
TSP020323-26	MSC01	3/14/23	1655.51	0.010	-0.0005	-0.51	5,000	No	500	No
TSP020323-28	MSC02	3/14/23	1739.40	0.00949						
TSP020323-30	MSC01	3/16/23	1694.68	0.0218	0.0001	0.10	5,000	No	500	No
TSP020323-32	MSC02	3/16/23	1728.70	0.0219						
TSP020323-34	MSC01	3/16/23 <sup>2</sup>	480.10	0.0344	-0.0020	-2.00	5,000	No	500	No
TSP020623-02	MSC02	3/16/23 <sup>2</sup>	519.14	0.0324						
TSP020623-06	MSC01	3/21/23	1667.66	0.0188	0.0010	1.00	5,000	No	500	No
TSP020623-12	MSC02	3/21/23	1735.74	0.0198						
TSP020623-14	MSC01	3/23/23	1556.49	0.0242	-0.0054	-5.40	5,000	No	500	No
TSP020623-16	MSC02	3/23/23	1667.06	0.0188						
TSP020623-18	MSC01	3/23/23 <sup>2</sup>	466.67	0.0334	-0.0122	-12.20	5,000	No	500	No
TSP020623-20	MSC02	3/23/23 <sup>1,2</sup>	293.01	0.0212						
TSP020223-23	MSC01	3/28/23	1624.27	0.0215	0.0002	0.20	5,000	No	500	No
TSP020223-25	MSC02	3/28/23	1692.62	0.0217						
TSP020223-27	MSC01	3/30/23 <sup>2</sup>	514.18	0.00778 J+	-0.0066	-6.62	5,000	No	500	No

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP020223-29	MSC02	3/30/23 <sup>2</sup>	548.95	0.0144						
TSP020223-39	MSC01	4/04/23	1693.85	0.0237	-0.0025	-2.50	5,000	No	500	No
TSP020323-62	MSC02	4/04/23	1720.87	0.0212						
TSP020323-64	MSC01	4/05/23	1663.88	0.0211	-0.0036	-3.60	5,000	No	500	No
TSP020323-66	MSC02	4/05/23	1735.90	0.0175						
TSP020323-68	MSC01	4/06/23	1661.80	0.0285	-0.0051	-5.10	5,000	No	500	No
TSP020323-70	MSC02	4/06/23	1724.78	0.0234						
TSP020923-02	MSC01	4/06/23 <sup>2</sup>	554.40	0.0162	0.0008	0.80	5,000	No	500	No
TSP020923-04	MSC02	4/06/23 <sup>2</sup>	581.88	0.017						
TSP021523-33	MSC01	4/11/23	1698.82	0.024	-0.0085	-8.50	5,000	No	500	No
TSP020823-01	MSC02	4/11/23	1761.73	0.0155						
TSP020823-03	MSC01	4/12/23	1629.85	0.0306	0.0008	0.80	5,000	No	500	No
TSP020823-05	MSC02	4/12/23	1688.62	0.0314						
TSP020823-07	MSC01	4/13/23	1650.61	0.0351	0.0007	0.70	5,000	No	500	No
TSP020823-09	MSC02	4/13/23	1387.10	0.0358						
TSP020823-11	MSC01	4/13/23 <sup>2</sup>	534.94	0.0295	-0.0011	-1.10	5,000	No	500	No
TSP020823-13	MSC02	4/13/23 <sup>2</sup>	552.25	0.0284						
TSP021623-18	MSC01	4/18/23	1675.38	0.0205	0.0071	7.10	5,000	No	500	No
TSP021623-20	MSC02	4/18/23	1714.56	0.0276						
TSP021623-22	MSC01	4/19/23	1626.92	0.0202	0.00	0.00	5,000	No	500	No
TSP021623-24	MSC02	4/19/23	1692.11	0.0202						
TSP021623-26	MSC01	4/20/23	1616.86	0.0283	-0.0023	-2.30	5,000	No	500	No
TSP022023-02	MSC02	4/20/23	1701.84	0.026						
TSP022023-04	MSC01	4/20/23 <sup>2</sup>	522.60	0.0346	0.0051	5.10	5,000	No	500	No
TSP022023-06	MSC02	4/20/23 <sup>2</sup>	619.33	0.0397						
TSP030323-31	MSC01	4/25/23	1659.15	0.141	-0.0876	-87.60	5,000	No	500	No
TSP030323-33	MSC02	4/25/23	1711.83	0.0534						

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP030323-35	MSC01	4/26/23	1654.76	0.0816	-0.0411	-41.10	5,000	No	500	No
TSP030323-37	MSC02	4/26/23	1722.56	0.0405						
TSP030323-39	MSC01	4/27/23	1661.46	0.0716	-0.0296	-29.60	5,000	No	500	No
TSP030923-01	MSC02	4/27/23 <sup>1</sup>	776.68	0.042						
TSP030923-03	MSC01	4/27/23 <sup>2</sup>	525.64	0.0795	-0.0295	-29.50	5,000	No	500	No
TSP030923-05	MSC02	4/27/23 <sup>2</sup>	504.07	0.05						
TSP031223-04	MSC01	5/02/23	1701.48	0.0987	-0.0645	-64.50	5,000	No	500	No
TSP031223-06	MSC02	5/02/23	1737.80	0.0342						
TSP031223-08	MSC01	5/03/23	1657.16	0.0132	-0.0020	-2.00	5,000	No	500	No
TSP031223-10	MSC02	5/03/23	1740.99	0.0112						
TSP031223-12	MSC01	5/04/23 <sup>2</sup>	578.57	0.0164	0.0011	1.10	5,000	No	500	No
TSP031223-14	MSC02	5/04/23 <sup>2</sup>	566.93	0.0175						
TSP031223-18	MSC01	5/09/23	1652.75	0.0241	-0.0056	-5.60	5,000	No	500	No
TSP031423-02	MSC02	5/09/23	1734.22	0.0185						
TSP031423-04	MSC01	5/10/23	1658.93	0.0307	-0.0075	-7.50	5,000	No	500	No
TSP031423-06	MSC02	5/10/23	1722.85	0.0232						
TSP031423-08	MSC01	5/11/23	1696.93	0.0259	-0.0028	-2.80	5,000	No	500	No
TSP031423-10	MSC02	5/11/23	1724.38	0.0231						
TSP031423-12	MSC01	5/11/23 <sup>2</sup>	512.83	0.0228	0.0133	13.30	5,000	No	500	No
TSP031423-14	MSC02	5/11/23 <sup>2</sup>	573.11	0.0361						
TSP031523-21	MSC01	5/16/23	1718.40	0.0164	0.0003	0.30	5,000	No	500	No
TSP031523-23	MSC02	5/16/23	1708.00	0.0167						
TSP031523-25	MSC01	5/17/23	1630.39	0.0212	-0.002	-1.60	5,000	No	500	No
TSP031523-27	MSC02	5/17/23	1688.85	0.0196						
TSP031523-29	MSC01	5/18/23	1679.35	0.0176	0.0019	1.90	5,000	No	500	No
TSP031523-31	MSC02	5/18/23	1733.33	0.0195						
TSP031523-33	MSC01	5/18/23 <sup>2</sup>	488.64	0.0244	0.0007	0.70	5,000	No	500	No

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentrati-on (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP031523-35	MSC02	5/18/23 <sup>2</sup>	505.82	0.0251						
TSP030323-11	MSC01	5/23/23	1709.17	0.0304	0.0294	29.40	5,000	No	500	No
TSP030923-07	MSC02	5/23/23	1721.41	0.0598						
TSP030923-09	MSC01	5/24/23	1580.87	0.0513	0.0007	0.70	5,000	No	500	No
TSP030923-11	MSC02	5/24/23	1709.30	0.052						
TSP030923-13	MSC01	5/25/23	1619.49	0.0373	-0.0032	-3.20	5,000	No	500	No
TSP030923-15	MSC02	5/25/23	1737.64	0.0341						
TSP030923-17	MSC01	5/25/23 <sup>2</sup>	534.21	0.0268	0.0086	8.60	5,000	No	500	No
TSP030923-19	MSC02	5/25/23 <sup>2</sup>	553.95	0.0354						
TSP031223-33	MSC01	5/31/23	1642.06	0.0245	-0.0078	-7.80	5,000	No	500	No
TSP031223-35	MSC02	5/31/23	1716.15	0.0167						
TSP031223-37	MSC01	6/01/23	1666.80	0.0499	0.0066	6.60	5,000	No	500	No
TSP031223-39	MSC02	6/01/23	1733.27	0.0565						
TSP031223-41	MSC01	6/01/23 <sup>2</sup>	575.36	0.0525	0.0008	0.80	5,000	No	500	No
TSP031223-43	MSC02	6/01/23 <sup>2</sup>	585.89	0.0533						
TSP032123-15	MSC01	6/06/23	1650.14	0.0233	0.0182	18.20	5,000	No	500	No
TSP032123-17	MSC02	6/06/23 <sup>1</sup>	913.80	0.0415						
TSP032123-19	MSC01	6/07/23	1645.12	0.0168	0.0001	0.10	5,000	No	500	No
TSP032123-21	MSC02	6/07/23	1718.75	0.0169						
TSP032123-23	MSC01	6/08/23	1669.41	0.035	-0.0141	-14.10	5,000	No	500	No
TSP032123-25	MSC02	6/08/23	1742.99	0.0209						
TSP032123-27	MSC01	6/08/23 <sup>2</sup>	368.37	0.0282	0.0009	0.90	5,000	No	500	No
TSP032123-29	MSC02	6/08/23 <sup>2</sup>	481.50	0.0291						
TSP032223-09	MSC01	6/13/23	1666.70	0.0198	-0.0041	-4.10	5,000	No	500	No
TSP032223-11	MSC02	6/13/23	1724.26	0.0157						
TSP032223-13	MSC01	6/14/23	1638.49	0.0177	0.0029	2.90	5,000	No	500	No
TSP032223-15	MSC02	6/14/23	1699.87	0.0206						

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP032223-17	MSC01	6/15/23	1660.87	0.0247	0.0045	4.50	5,000	No	500	No
TSP032223-19	MSC02	6/15/23	1725.22	0.0292						
TSP032223-21	MSC01	6/15/23 <sup>2</sup>	415.38	0.0248	0.0082	8.20	5,000	No	500	No
TSP032223-23	MSC02	6/15/23 <sup>2</sup>	409.09	0.0166 J+						
TSP031623-01	MSC01	6/20/23	1598.40	0.0292	0.0062	6.20	5,000	No	500	No
TSP032423-25	MSC02	6/20/23	1691.60	0.0354						
TSP032423-09	MSC01	6/21/23	1670.69	0.0275	0.0014	1.40	5,000	No	500	No
TSP032423-11	MSC02	6/21/23	1565.11	0.0289						
TSP032423-13	MSC01	6/22/23	1655.41	0.0339	0.0026	2.60	5,000	No	500	No
TSP032423-15	MSC02	6/22/23	1733.52	0.0365						
TSP032423-17	MSC01	6/22/23 <sup>2</sup>	576.12	0.042	-0.0008	-0.80	5,000	No	500	No
TSP032423-19	MSC02	6/22/23 <sup>2</sup>	592.80	0.0412						
TSP031623-21	MSC01	6/27/23	1638.68	0.0295	-0.0056	-5.60	5,000	No	500	No
TSP031623-23	MSC02	6/27/23	1709.23	0.0239						
TSP031623-25	MSC01	6/28/23	1650.36	0.0241	-0.0072	-7.20	5,000	No	500	No
TSP031623-27	MSC02	6/28/23	1726.32	0.0169						
TSP031623-29	MSC01	6/29/23	1644.56	0.0228	-0.0067	-6.70	5,000	No	500	No
TSP031623-31	MSC02	6/29/23	1762.76	0.0161						
TSP032223-33	MSC01	6/29/23 <sup>2</sup>	388.84	0.0257	0.0037	3.70	5,000	No	500	No
TSP031623-35	MSC02	6/29/23 <sup>2</sup>	385.72	0.022 J+						
TSP032023-07	MSC01	7/06/23	1657.74	0.0275	-0.0003	-0.30	5,000	No	500	No
TSP032023-09	MSC02	7/06/23	1726.90	0.0272						
TSP032023-11	MSC01	7/06/23 <sup>2</sup>	589.47	0.0316	0.0028	2.80	5,000	No	500	No
TSP032023-13	MSC02	7/06/23 <sup>2</sup>	590.35	0.0344						
TSP041823-53	MSC01	7/11/23	1618.35	0.0185	0.0100	10.00	5,000	No	500	No
TSP041823-55	MSC02	7/11/23	1731.27	0.0285						
TSP041823-57	MSC01	7/12/23	1662.53	0.0183	0.0034	3.40	5,000	No	500	No

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP041823-59	MSC02	7/12/23	1745.64	0.0217						
TSP041823-61	MSC01	7/13/23	1681.66	0.0221	0.0016	1.60	5,000	No	500	No
TSP041823-63	MSC02	7/13/23	1765.35	0.0237						
TSP041823-65	MSC01	7/13/23 <sup>2</sup>	556.36	0.0214	0.0004	0.40	5,000	No	500	No
TSP041823-67	MSC02	7/13/23 <sup>2</sup>	572.30	0.0218						
TSP042123-49	MSC01	7/18/23	1659.45	0.0468	-0.0038	-3.80	5,000	No	500	No
TSP042123-51	MSC02	7/18/23	1740.44	0.0430						
TSP042123-53	MSC01	7/19/23	1659.42	0.0466	-0.0141	-14.10	5,000	No	500	No
TSP042123-55	MSC02	7/19/23	1755.57	0.0325						
TSP042123-57	MSC01	7/20/23	1655.05	0.0280	-0.0044	-4.40	5,000	No	500	No
TSP042123-59	MSC02	7/20/23	1749.27	0.0236						
TSP042123-61	MSC01	7/20/23 <sup>2</sup>	612.22	0.0381	-0.0059	-5.90	5,000	No	500	No
TSP042123-63	MSC02	7/20/23 <sup>2</sup>	617.13	0.0322						
TSP042123-14	MSC01	7/25/23	1633.53	0.0240	-0.0052	-5.20	5,000	No	500	No
TSP042123-16	MSC02	7/25/23	1711.34	0.0188						
TSP042123-18	MSC01	7/26/23	1680.55	0.0219	-0.0007	-0.70	5,000	No	500	No
TSP042123-20	MSC02	7/26/23	1763.35	0.0212						
TSP042123-22	MSC01	7/27/23	1589.42	0.0488	-0.0051	-5.10	5,000	No	500	No
TSP042123-24	MSC02	7/27/23	1736.19	0.0437						
TSP042123-26	MSC01	7/27/23 <sup>2</sup>	586.60	0.0753	-0.0183	-18.30	5,000	No	500	No
TSP042123-28	MSC02	7/27/23 <sup>2</sup>	598.13	0.0570						
TSP041223-20	MSC01	8/01/23	1646.87	0.0397	-0.0047	-4.70	5,000	No	500	No
TSP041223-22	MSC02	8/01/23	1701.27	0.0350						
TSP041223-24	MSC01	8/02/23	1639.56	0.0279	-0.0097	-9.70	5,000	No	500	No
TSP041223-26	MSC02	8/02/23	1720.38	0.0182						
TSP041223-28	MSC01	8/03/23	1657.85	0.0274	-0.0018	-1.80	5,000	No	500	No
TSP041223-30	MSC02	8/03/23	1735.31	0.0256						

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP041223-32	MSC01	8/03/23 <sup>2</sup>	610.88	0.0321	0.0154	15.40	5,000	No	500	No
TSP041223-34	MSC02	8/03/23 <sup>2</sup>	621.16	0.0475						
TSP041623-15	MSC01	8/08/23	1664.80	0.0286	0.0126	12.60	5,000	No	500	No
TSP041623-17	MSC02	8/08/23	1743.15	0.0412						
TSP041623-19	MSC01	8/09/23	1680.65	0.0243	-0.0041	-4.10	5,000	No	500	No
TSP041623-21	MSC02	8/09/23	1758.02	0.0202						
TSP041623-23	MSC01	8/10/23	1664.64	0.0142	-0.0019	-1.90	5,000	No	500	No
TSP041623-25	MSC02	8/10/23	1738.90	0.0123						
TSP041623-27	MSC01	8/10/23 <sup>2</sup>	487.23	0.0246	-0.0034	-3.40	5,000	No	500	No
TSP041623-29	MSC02	8/10/23 <sup>2</sup>	476.06	0.0212						
TSP042023-02	MSC01	8/15/23	1630.48	0.0178	-0.0019	-1.90	5,000	No	500	No
TSP042023-04	MSC02	8/15/23	1714.00	0.0159						
TSP042023-06	MSC01	8/16/23	1641.04	0.0182	-0.0026	-2.60	5,000	No	500	No
TSP042023-08	MSC02	8/16/23	1735.26	0.0156						
TSP042023-10	MSC01	8/17/23	1645.04	0.0182	-0.0037	-3.70	5,000	No	500	No
TSP042023-12	MSC02	8/17/23	1764.11	0.0145						
TSP042023-14	MSC01	8/17/23 <sup>2</sup>	558.45	0.0240	0.0018	1.80	5,000	No	500	No
TSP042023-16	MSC02	8/17/23 <sup>2</sup>	576.77	0.0258						
TSP042023-18	MSC01	8/22/23	1639.18	0.0416	-0.0248	-24.80	5,000	No	500	No
TSP042023-20	MSC02	8/22/23	1753.49	0.0168						
TSP042023-22	MSC01	8/23/23	1646.86	0.0285	-0.0032	-3.20	5,000	No	500	No
TSP042023-24	MSC02	8/23/23	1749.31	0.0253						
TSP042023-26	MSC01	8/24/23	1668.15	0.0248	0.0068	6.80	5,000	No	500	No
TSP042023-28	MSC02	8/24/23	1743.00	0.0316						
TSP042023-30	MSC01	8/24/23 <sup>2</sup>	564.00	0.0576	-0.0089	-8.90	5,000	No	500	No
TSP051123-52	MSC02	8/24/23 <sup>2</sup>	570.89	0.0487						
TSP051623-02	MSC01	8/29/23	1605.03	0.0400	0.0033	3.30	5,000	No	500	No

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP051623-04	MSC02	8/29/23	1685.09	0.0433						
TSP051623-06	MSC01	8/30/23	1657.79	0.0449	-0.0083	-8.30	5,000	No	500	No
TSP051623-08	MSC02	8/30/23	1735.38	0.0366						
TSP051623-10	MSC01	8/31/23	1702.15	0.0681	-0.0128	-12.80	5,000	No	500	No
TSP051623-12	MSC02	8/31/23	1761.08	0.0553						
TSP051623-14	MSC01	8/31/23 <sup>2</sup>	458.48	0.0641	-0.0119	-11.90	5,000	No	500	No
TSP051623-16	MSC02	8/31/23 <sup>2</sup>	483.13	0.0522						
TSP042123-71	MSC01	9/06/23	1650.38	0.0296	0.0019	1.90	5,000	No	500	No
TSP042123-73	MSC02	9/06/23	1724.18	0.0315						
TSP042123-75	MSC01	9/07/23	1676.08	0.0264	-0.0009	-0.90	5,000	No	500	No
TSP042123-77	MSC02	9/07/23	1754.73	0.0255						
TSP042123-79	MSC01	9/07/23 <sup>2</sup>	535.07	0.0368	0.0004	0.40	5,000	No	500	No
TSP042123-81	MSC02	9/07/23 <sup>2</sup>	551.11	0.0372						
TSP050123-04	MSC01	9/12/23	1651.22	0.0435	-0.0042	-4.20	5,000	No	500	No
TSP050123-06	MSC02	9/12/23	1740.06	0.0393						
TSP050123-08	MSC01	9/13/23	1658.11	0.0316	0.0001	0.10	5,000	No	500	No
TSP050123-10	MSC02	9/13/23	1754.92	0.0317						
TSP050123-12	MSC01	9/14/23	1646.66	0.0216	-0.0040	-4.00	5,000	No	500	No
TSP050123-14	MSC02	9/14/23	1734.38	0.0176						
TSP050123-16	MSC01	9/14/23 <sup>2</sup>	578.15	0.0486	0.0143	14.30	5,000	No	500	No
TSP050123-18	MSC02	9/14/23 <sup>2</sup>	588.15	0.0343						
TSP051223-59	MSC01	9/19/23	1642.31	0.0227	-0.0026	-2.60	5,000	No	500	No
TSP051223-61	MSC02	9/19/23	1729.17	0.0201						
TSP051223-63	MSC01	9/20/23	1658.18	0.0663	0.0026	2.60	5,000	No	500	No
TSP051223-65	MSC02	9/20/23	1742.81	0.0689						
TSP051223-67	MSC01	9/21/23	1645.81	0.0778	-0.0057	-5.70	5,000	No	500	No
TSP051223-69	MSC02	9/21/23	1733.42	0.0721						

### Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP051223-71	MSC01	9/21/23 <sup>2</sup>	557.45	0.0777	0.0022	2.20	5,000	No	500	No
TSP051223-73	MSC02	9/21/23 <sup>2</sup>	562.79	0.0755						
TSP051723-06	MSC01	9/26/23	1651.15	0.024	-0.0048	-4.80	5,000	No	500	No
TSP051723-08	MSC02	9/26/23	1747.70	0.0192						
TSP051723-10	MSC01	9/27/23	1665.33	0.0269	-0.0026	-2.60	5,000	No	500	No
TSP051723-12	MSC02	9/27/23	1745.81	0.0243						
TSP051723-14	MSC01	9/28/23	1629.13	0.0355	-0.0007	-0.70	5,000	No	500	No
TSP051723-16	MSC02	9/28/23	1720.58	0.0348						
TSP051723-18	MSC01	9/28/23 <sup>2</sup>	506.61	0.0456	0.0037	3.70	5,000	No	500	No
TSP051723-20	MSC02	9/28/23 <sup>2</sup>	504.09	0.0419						
TSP042523-54	MSC01	10/03/23	1655.09	0.0234	0.0030	3.00	5,000	No	500	No
TSP042523-56	MSC02	10/03/23	1732.09	0.0264						
TSP042523-58	MSC01	10/04/23	1658.87	0.0369	-0.0019	-1.90	5,000	No	500	No
TSP042523-56	MSC02	10/04/23	1751.40	0.035						
TSP042523-62	MSC01	10/05/23	1661.94	0.0528	0.0055	5.50	5,000	No	500	No
TSP042523-64	MSC02	10/05/23	1754.94	0.0473						
TSP042523-66	MSC01	10/05/23 <sup>2</sup>	529.98	0.0609	0.0102	10.20	5,000	No	500	No
TSP042523-68	MSC02	10/05/23 <sup>2</sup>	566.19	0.0507						
TSP051923-08	MSC01	10/10/23	1601.09	0.0134	-0.0013	-1.30	5,000	No	500	No
TSP051923-10	MSC02	10/10/23	1698.84	0.0147						
TSP072823-02	MSC01	10/11/23	1644.70	0.0128	0.0038	3.80	5,000	No	500	No
TSP072823-04	MSC02	10/11/23	1762.08	0.0166						
TSP072823-06	MSC01	10/12/23	1626.58	0.0413	-0.0069	-6.90	5,000	No	500	No
TSP072823-08	MSC02	10/12/23	1699.40	0.0344						
TSP072823-10	MSC01	10/12/23 <sup>2</sup>	569.08	0.0457	0.0173	17.30	5,000	No	500	No
TSP072823-12	MSC02	10/12/23 <sup>2</sup>	574.50	0.0284						
TSP072823-16	MSC01	10/17/23	1644.79	0.0241	-0.0076	-7.60	5,000	No	500	No

## Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	TSP						
Sample ID	Monitoring Station	Sample End Date	Total Air Volume Monitored (m <sup>3</sup> )	Concen-tration in Air (mg/m <sup>3</sup> )	TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m <sup>3</sup> )	TSP Perimeter Concentrati-on (Downwind - Upwind) (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level (ug/m <sup>3</sup> )	Exceedance (Yes/No)
TSP072823-18	MSC02	10/17/23	1734.79	0.0165						
TSP072823-20	MSC01	10/18/23	1639.75	0.0212	-0.0038	-3.80	5,000	No	500	No
TSP072823-22	MSC02	10/18/23	1731.36	0.0174						
TSP072823-24	MSC01	10/19/23	1675.90	0.0506	0.0037	3.70	5,000	No	500	No
TSP072823-26	MSC02	10/19/23	1768.44	0.0469						
TSP072823-28	MSC01	10/19/23 <sup>2</sup>	508.80	0.0833	0.0104	10.40	5,000	No	500	No
TSP072823-30	MSC02	10/19/23 <sup>2</sup>	533.93	0.0729						

**Notes:**

<sup>1</sup>Generator or sampler malfunction

**Bold** = result above project screening criteria

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

HPNS = Hunters Point Naval Shipyard

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

J+ = estimated concentration biased high

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

mg/m<sup>3</sup> = milligrams per cubic meter

**ATTACHMENT 6**  
**RADIONUCLIDES OF CONCERN AIR SAMPLING RESULTS**

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**Attachment 6: Radionuclides of Concern Air Sampling Results**

Date	Sample Location	Duration of Run (min)	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Cobalt-60		Thorium-232		Exceedance (Yes/No)	
			Action Level		4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.00E-11			
			Units		μCi/mL		μCi/mL		μCi/mL		μCi/mL		μCi/mL			
12/6/22 -12/8/22	1	3178	3.91E-15	U	7.24E-16	UJ	4.57E-15	U	2.1E-14	U	5.28E-15	U	3.94E-16	U	No	
	2	3189	4.13E-15	U	1.61E-15	UJ	5.73E-15	J	1.9E-14	U	4.91E-15	U	1.24E-16	U	No	
12/12/22-12/15/22	1	4747	2.85E-15	U	6.01E-16	UJ	2.42E-15	U	1.69E-14	U	2.8E-15	U	2.75E-16	U	No	
	2	4777	2.91E-15	U	9.2E-16	UJ	4.84E-15	J	1.39E-14	U	2.77E-15	U	2.63E-16	U	No	
12/19/22-12/22/22	1	4342	2.63E-15	U	6.31E-16	UJ	5.32E-15	J	1.9E-14	U	3.6E-15	U	2.64E-16	J	No	
	2	4348	7.16E-15	U	6.72E-16	UJ	4.65E-15	J	1.6E-14	U	7.04E-15	U	2.92E-16	UJ	No	
01/17/23-01/19/23	1	3089	5.32E-15	U	5.7E-16	U	8.1E-14	U	2.48E-14	UJ	5.08E-15	U	4.01E-16	U	No	
	2	3097	3.83E-15	U	7.51E-16	U	4.83E-14	U	2.03E-14	U	4.53E-15	U	3.98E-16	U	No	
01/23/23-01/25/23	1	3403	3.58E-15	U	6.37E-16	UJ	4.55E-14	UJ	1.68E-14	U	4.13E-15	UJ	3.87E-16	U	No	
	1*	3403	4.41E-15	U	9.47E-16	UJ	4.34E-14	UJ	2E-14	U	5.59E-15	U	4.1E-16	U	No	
	2	3233	4.58E-15	UJ	6.03E-16	UJ	8.04E-14	UJ	1.98E-14	U	5.72E-15	U	4.68E-16	U	No	
02/01/23-02/02/23	1	1819	1.42E-14	U	9.32E-16	U	2.86E-13	UJ	3.74E-14	U	1.64E-14	U	4.26E-16	U	No <sup>1</sup>	
	2	1900	9.03E-15	U	1.47E-15	U	1.37E-13	UJ	3.27E-14	U	9.52E-15	U	7.28E-16	U	No	
02/06/23-02/09/23	1	4717	3.23E-15	U	4.56E-16	UJ	7.41E-14		1.21E-14	U	3.42E-15	U	2.18E-16	UJ	No	
	2	4751	2.54E-15	U	4.47E-16	UJ	3.07E-14	U	1.33E-14	U	3.23E-15	U	5.65E-16	U	No	
02/13/23-02/16/23	1	4684	3.13E-15	U	1.03E-15	J	5.47E-14	UJ	1.5E-14	U	3.8E-15	U	2.69E-16	UJ	No	
	2	4716	2.4E-15	U	4.5E-16	UJ	3.45E-14	UJ	1.45E-14	U	3.52E-15	U	3E-16	UJ	No	
02/20/23-02/23/23	1	4813	2.68E-15	U	2.54E-16	UJ	3.18E-14	UJ	1.4E-14	U	3.04E-15	U	3.34E-16	UJ	No	
	2	4784	2.94E-15	U	4.07E-16	UJ	5.03E-14	UJ	1.39E-14	U	3.52E-15	U	3.48E-16	UJ	No	
02/27/23-03/02/23	1	1991	6.38E-15	U	8.56E-16	UJ	7.43E-14	UJ	3.39E-14	U	7.8E-15	U	5.59E-16	UJ	No	
	1*	1991	6.2E-15	U	2.7E-15	J	7.64E-14	UJ	3.62E-14	U	6.1E-15	U	7.48E-16	UJ	No	
	2	1996	5.97E-15	U	5.84E-16	UJ	7.88E-14	UJ	3.26E-14	U	8.09E-15	U	7.33E-16	UJ	No	
03/13/23-03/16/23	1	3319	3.97E-15	U	6.11E-16	UJ	7.92E-14	UJ	1.9E-14	U	4.95E-15	U	3.79E-16	UJ	No	
	2	3308	4.63E-15		4E-16	UJ	6.44E-14	UJ	2.12E-14	U	5.73E-15	U	4.75E-16	UJ	No	
03/20/23-03/23/23	1	1774	7.83E-15	U	1.2E-15	UJ	8.87E-14	UJ	3.99E-14	U	8.62E-15	U	5.86E-16	UJ	No	
	2	1780	7.25E-15	U	6.99E-16	UJ	8.9E-14	UJ	3.8E-14	U	8.15E-15	U	1.49E-15	J	Yes <sup>2</sup>	
03/27/23-03/30/23	1	1921	6.71E-15	U	1.26E-15	UJ	8.18E-14	UJ	3.72E-14	U	6.55E-15	U	6.98E-16	UJ	No	
	2	1935	6.3E-15	U	1.49E-15	UJ	7.75E-14	UJ	3.73E-14	U	7.81E-15	U	9.53E-16	UJ	No	
04/03/23-04/06/23	1	4851	2.88E-15		3.37E-16	UJ	5.39E-14	UJ	1.21E-14	U	3.51E-15	U	2.58E-16	J	No	
	2	4837	2.79E-15	U	4.31E-16	UJ	3.2E-14	UJ	1.43E-14	U	3.2E-15	U	2.13E-16	UJ	No	
04/10/23-04/13/23	1	4966	2.61E-15	U	3.89E-16	U	3.21E-14	U	1.31E-14	U	3.05E-15	U	2.59E-16	U	No	
	2	4948	3.05E-15	U	3.43E-16	U	5.05E-14	U	1.35E-14	U	3.54E-15	U	3.07E-16	J	No	
04/17/23-04/20/23	1	4834	2.73E-15	U	1.6E-16	U	5.24E-14	UJ	1.23E-14	U	3.38E-15	U	3.24E-16	UJ	No	
	2	4858	3.2E-15	U	3.55E-16	UJ	5.22E-14	UJ	1.23E-14	U	3.34E-15	U	3.62E-16	UJ	No	
04/24/23-04/27/23	1	4886	2.48E-15	U	2.95E-16	UJ	3.31E-14	UJ	1.31E-14	U	2.76E-15	U	2.42E-16	UJ	No	
	2	4861	2.31E-15	U	3E-16	UJ	5.24E-14	UJ	1.2E-14	U	3.04E-15	U	2.48E-16	UJ	No	
05/01/23-05/04/23	1	3399	3.79E-15	U	4.89E-16	UJ	4.77E-14	UJ	2.16E-14	U	5.08E-15	U	3.56E-16	UJ	No	
	2	3376	7.94E-15	U	5.42E-16	UJ	1.49E-13	UJ	1.89E-14	U	9.69E-15	U	4.69E-16	J	No	
05/08/23-05/11/23	1	4948	-1.6E-15	U	-9.3E-17	J	5.38E-14	UJ	1.34E-14	U	-2.1E-15	U	1.83E-16	UJ	No	
	2	4944	-1.6E-15	U	-6E-17	J	-2E-14	J	-6E-16	U	-1.9E-15	U	2.08E-16	UJ	No	
05/15/23-05/18/23	1	4857	5.22E-15	U	4.89E-16	UJ	1.1E-13	UJ	1.36E-14	U	6.46E-15	U	1.64E-16	J	No	
	2	4837	3.19E-15	U	4.47E-16	UJ	5.3E-14	UJ	-3.7E-15	U	3.54E-15	U	1.33E-16	J	No	

**Attachment 6: Radionuclides of Concern Air Sampling Results**

Date	Sample Location	Duration of Run (min)	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Cobalt-60		Thorium-232		Exceedance (Yes/No)	
			Action Level		4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.00E-11			
			Units		μCi/mL		μCi/mL		μCi/mL		μCi/mL		μCi/mL			
05/22/23-05/25/23	1	4870	2.42E-15	U	3.9E-16	UJ	5.22E-14	UJ	-1.4E-15	U	-1.6E-15	U	3.1E-16	J	No	
	2	4895	8.54E-16	J	4.22E-16	UJ	5.95E-14	J	1.18E-14	U	1.98E-15	J	2.58E-16	UJ	No	
05/30/23-06/01/23	1	3522	4.70E-15	U	5.18E-16	UJ	8.53E-14	UJ	1.84E-14	U	4.64E-15	UJ	2.60E-16	J	No	
	2	3514	4.16E-15	U	4.27E-16	UJ	7.50E-14	UJ	1.82E-14	U	5.78E-15	U	2.79E-16	J	No	
06/05/23-06/08/23	1	4859	2.71E-15	U	4.32E-16	UJ	5.31E-14	UJ	1.43E-14	U	4.31E-15	U	2.51E-16	UJ	No	
	1*	4858	4.01E-15	U	3.82E-16	UJ	5.27E-14	UJ	1.39E-14	U	3.55E-15	U	2.22E-16	UJ	No	
	2	4848	2.46E-15	U	6.05E-16	UJ	3.55E-14	UJ	1.56E-14	U	2.95E-15	U	1.96E-16	UJ	No	
06/12/23-06/15/23	1	4809	-7.70E-16	U	4.78E-16	UJ	1.05E-13	UJ	-5.80E-16	U	1.52E-15	J	2.79E-16	UJ	No	
	2	4838	1.40E-15	J	3.95E-16	UJ	5.17E-14	UJ	1.26E-14	U	7.94E-16	J	1.25E-16	J	No	
	2*	4838	5.39E-16	J	6.58E-16	UJ	5.30E-14	UJ	6.02E-15	J	-1.10E-15	U	2.53E-16	UJ	No	
06/19/23-06/22/23	1	4759	1.36E-15	J	5.77E-16	UJ	5.40E-14	UJ	1.25E-14	U	-2.10E-15	U	3.19E-16	UJ	No	
	2	4740	-9.90E-16	U	6.25E-16	UJ	6.18E-14	J	-3.30E-15	U	-1.30E-15	U	2.27E-16	UJ	No	
06/26/23-06/29/23	1	4676	5.60E-15	U	3.81E-16	UJ	6.47E-14	UJ	1.93E-14	U	7.74E-15	U	2.08E-16	J	No	
	2	4661	5.88E-15	U	4.29E-16	UJ	6.53E-14	UJ	1.48E-14	U	5.64E-15	U	2.57E-16	UJ	No	
07/05/23-07/06/23	1	2040	1.22E-14	U	1.03E-15	UJ	2.20E-13	UJ	4.45E-14	U	1.31E-14	U	3.20E-16	J	No <sup>1</sup>	
	2	1925	6.34E-15	U	7.80E-16	UJ	7.83E-14	UJ	3.48E-14	U	7.87E-15	U	2.09E-15	J	Yes	
07/10/23-07/13/23	1	4907	3.05E-15	U	4.08E-16	UJ	5.19E-14	UJ	1.42E-14	U	3.66E-15	U	2.73E-16	UJ	No	
	2	4896	5.41E-15	U	6.32E-16	UJ	9.47E-14	UJ	1.32E-14	U	6.59E-15	U	2.21E-16	UJ	No	
07/17/23-07/20/23	1	4966	3.11E-15	U	4.35E-16	UJ	5.26E-14	UJ	1.67E-14	UJ	3.40E-15	U	1.58E-16	UJ	No	
	2	4954	2.58E-15	U	1.07E-15	UJ	3.28E-14	UJ	1.31E-14	U	2.59E-15	U	1.62E-16	UJ	No	
07/24/23-07/27/23	1	4967	2.45E-15	U	4.12E-16	UJ	3.00E-14	UJ	1.46E-14	U	3.35E-15	U	2.64E-16	J	No	
	2	4943	5.72E-15	U	4.32E-16	UJ	8.86E-14	UJ	1.32E-14	U	4.98E-15	U	2.33E-16	UJ	No	
07/31/23-08/03/23	1	4827	3.49E-15	U	3.39E-16	UJ	5.53E-14	UJ	1.41E-14	U	3.77E-15	U	2.21E-16	UJ	No	
	2	4807	5.98E-15	U	3.39E-16	UJ	9.30E-14	UJ	1.26E-14	U	6.32E-15	U	1.34E-16	UJ	No	
08/07/23-08/10/23	1	4852	2.97E-15	U	3.03E-16	UJ	5.27E-14	UJ	1.53E-14	U	3.57E-15	U	4.66E-16	J	No	
	2	4943	2.54E-15	U	3.66E-16	UJ	3.41E-14	UJ	1.27E-14	U	2.77E-15	U	5.78E-16	J	No	
08/14/23-08/17/23	1	4818	3.14E-15	U	3.95E-16	UJ	5.33E-14	UJ	1.38E-14	U	3.37E-15	U	6.37E-16	J	No	
	2	4803	5.52E-15	U	3.31E-16	UJ	9.48E-14	UJ	1.22E-14	U	6.64E-15	U	4.86E-16	J	No	
08/21/23-08/24/23	1	4946	5.13E-15	U	3.67E-16	UJ	1.07E-13	UJ	1.70E-14	U	5.57E-15	U	4.21E-16	J	No	
	1*	4947	2.56E-15	U	3.83E-16	UJ	3.35E-14	UJ	1.39E-14	U	2.91E-15	U	1.75E-16	UJ	No	
	2	4920	2.67E-15	U	3.31E-16	UJ	3.00E-14	UJ	1.40E-14	U	2.93E-15	U	5.64E-16	J	No	
08/28/23-08/31/23	1	4724	2.89E-15	U	2.13E-16	U	3.40E-14	UJ	1.80E-14	U	3.37E-15	U	7.39E-16		No	
	2	4700	5.34E-15	U	2.74E-16	U	1.11E-13	UJ	1.40E-14	U	7.05E-15	U	5.57E-16		No	
	2*	4700	2.81E-15	U	3.34E-16	U	3.56E-14	UJ	1.38E-14	U	3.36E-15	U	7.39E-16		No	
09/05/23-09/07/23	1	3497	3.49E-15	U	3.35E-16	U	4.26E-14	U	1.76E-14	U	3.89E-15	U	7.05E-16		No	
	2	3485	3.68E-15	U	5.69E-16	U	4.70E-14	U	1.72E-14	U	3.76E-15	U	3.19E-16		No	

**Attachment 6: Radionuclides of Concern Air Sampling Results**

Date	Sample Location	Duration of Run (min)	Cesium-137		Plutonium-239/240		Radium-226		Strontium-90		Cobalt-60		Thorium-232		Exceedance (Yes/No)		
Action Level			4.00E-11		4.00E-15		1.80E-13		1.20E-12		1.00E-11		1.20E-15				
Units			μCi/mL		μCi/mL		μCi/mL		μCi/mL		μCi/mL		μCi/mL				
09/11/23-09/14/23	1	4983	2.77E-15	U	2.39E-16	UJ	3.30E-14	UJ	1.77E-14	U	2.93E-15	U	5.04E-16	J	No		
	1*		2.65E-15	U	2.44E-16	UJ	3.27E-14	UJ	1.34E-14	U	2.96E-15	U	2.84E-16	J	No		
	2		2.39E-15	U	3.74E-16	UJ	3.12E-14	UJ	1.33E-14	U	2.97E-15	U	4.01E-16	J	No		
09/18/23-09/21/23	1	4984	2.77E-15	U	3.92E-16	UJ	3.36E-14	UJ	1.81E-14	U	3.01E-15	U	4.55E-16	J	No		
	2	4964	2.50E-15	U	2.21E-16	UJ	3.16E-14	UJ	1.30E-14	U	3.05E-15	U	3.86E-16	J	No		
09/25/23-09/28/23	1	4947	3.16E-15	U	1.64E-16	UJ	5.22E-14	UJ	1.14E-14	U	3.52E-15	U	1.86E-16	J	No		
	2	4924	2.54E-15	U	2.89E-16	UJ	3.10E-14	UJ	1.25E-14	U	2.80E-15	U	4.17E-16	J	No		

Notes:

\* = duplicate sample

J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

min = minutes

U = activity is less than the MDC

UJ = estimated MDC

<sup>1</sup> = MDC value used in calculation due to activity reported as less than MDC; therefore, reported concentration is associated with an indeterminate probability and cannot be used reliably to support any quantitative conclusion

<sup>2</sup> = Exceedance changed from "No" to "Yes" as part of AMR #5. The sample has been consumed and no add'l analysis to confirm result could be performed.

μCi/mL= microcuries per milliliter

NA = Not Applicable

**ATTACHMENT 7**  
**LABORATORY REPORTS**

Air Monitoring Summary Report  
Parcel C Radiological Confirmation Sampling and Survey  
Hunters Point Naval Shipyard, San Francisco, CA

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Attachment 7

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# Laboratory Analysis Report

Job ID : 23101252



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

**Client Project Name :**  
**Hunters Point Shipyard, Parcel C Removal Site Evaluation / J310000600**

<b>Report To :</b>	Client Name: GES - ASRC Industrial	Total Number of Pages: 9
	Attn: [REDACTED]	P.O.#.: J310000600-006
	Client Address: 1501 West Fountainhead Parkway, Ste. #550	Date Received : 10/11/2023 09:13
	City, State, Zip: Tempe, Arizona, 85282	Sample Collected By :

**A&B Labs has analyzed the following samples...**

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
FBC - 100223	10/2/2023 8:00	Cassette	23101252.01
MSC01-100223	10/3/2023 6:45	Cassette	23101252.02
MSC02-100223	10/3/2023 6:53	Cassette	23101252.03
MSC01-100323	10/4/2023 6:49	Cassette	23101252.04
MSC02-00323	10/4/2023 6:59	Cassette	23101252.05
MSC01-100423	10/5/2023 6:50	Cassette	23101252.06
MSC02-100423	10/5/2023 6:58	Cassette	23101252.07
MSC01-100523	10/5/2023 14:30	Cassette	23101252.08
MSC02-100523	10/5/2023 14:42	Cassette	23101252.09

[REDACTED]  
Released By: [REDACTED]

Title: Project Manager

[REDACTED]  
Analyst:

[REDACTED]

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Any TWA calculations are based on client supplied data not lab observation.

ab-q210-0321

10/18/2023



**ANALYSIS OF AIRBORNE FIBER SAMPLING  
SAMPLING PERFORMED BY CLIENT**

**ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.  
AIHA Lab Accreditation # 101470      TDH PLM/PCM Lab License # 300080**

Date 10/18/202

Job ID : 23101252

Analytical Method: NIOSH 7400-I3-June2019

Client: GES - ASRC Industrial		Project: Hunters Point Shipyard, Parcel C Removal Site Evaluation / J310000600											Attn:		
A&B Sample ID	Client Sample ID	Collected Date	Area/Person	Flow Rate L/m	Time On	Time Off	Total Time (min)	Volume (Liters)	Total Fields	Total Fibers	F/mm2	Fiber/cc	8 Hour TWA	Analysis Date	Analyzed By
23101252.01	FBC - 100223	10/02/2023					0	100	0	0.000			10/17/23		
23101252.02	MSC01-100223	10/03/2023	Area	3.5			1431	5008.	100	10	12.739	0.001	10/17/23		
23101252.03	MSC02-100223	10/03/2023	Area	3.5			1431	5008.	100	9.5	12.102	0.001	10/17/23		
23101252.04	MSC01-100323	10/04/2023	Area	3			1444	4332	100	4.5	5.732	< 0.001	10/17/23		
23101252.05	MSC02 -00323	10/04/2023	Area	3.3			1445	4768.	100	7	8.917	0.001	10/17/23		
23101252.06	MSC01-100423	10/05/2023	Area	3.3			1439	4748.	100	5.0	6.369	< 0.001	10/17/23		
23101252.07	MSC02-100423	10/05/2023	Area	3.5			1437	5029.	100	6	7.643	0.001	10/17/23		
23101252.08	MSC01-100523	10/05/2023	Area	3.5			458	1603	100	5.5	7.006	0.002	10/17/23		
23101252.09	MSC02-100523	10/05/2023	Area	3.5			462	1617	100	6.5	8.280	0.002	10/17/23		

Detection limit of this method is estimated at 7 f/mm<sup>2</sup> (5.5 fibers per 100 fields)

Sr Value

(Fiber Range\*; Sr Value): (5-20; Sr = 0.06), (20-50; Sr = 0.05), (50-100; Sr = 0.04), (>100; Sr = 0.04)

\*Fiber Range = # of Fibers / 100 Counts

OUTR = Overload,Unable To Read



## Sample Condition Checklist

A&B JobID : <b>23101252</b>	Date Received : <b>10/11/2023</b>	Time Received : <b>9:13AM</b>										
Client Name : <b>GES - ASRC Industrial</b>												
Temperature : <b>21.6°C</b>	Sample pH : <b>NA</b>											
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>											
Perservative :												
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>								
1.	Cooler Seal present and signed.	X										
2.	Sample(s) in a cooler.		X									
3.	If yes, ice in cooler.			X								
4.	Sample(s) received with chain-of-custody.	X										
5.	C-O-C signed and dated.	X										
6.	Sample(s) received with signed sample custody seal.		X									
7.	Sample containers arrived intact. (If No comment)	X										
8.	Matrix:	<input type="checkbox"/> Water	<input type="checkbox"/> Soil	<input type="checkbox"/> Liquid	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solid	<input checked="" type="checkbox"/> Cassette	<input type="checkbox"/> Tube	<input type="checkbox"/> Bulk	<input type="checkbox"/> Badge	<input type="checkbox"/> Food	<input type="checkbox"/> Other
9.	Samples were received in appropriate container(s)		X									
10.	Sample(s) were received with Proper preservative			X								
11.	All samples were tagged or labeled.	X										
12.	Sample ID labels match C-O-C ID's.	X										
13.	Bottle count on C-O-C matches bottles found.	X										
14.	Sample volume is sufficient for analyses requested.	X										
15.	Samples were received with in the hold time.	X										
16.	VOA vials completely filled.			X								
17.	Sample accepted.	X										
18.	Has client been contacted about sub-out				X							

**Comments : Include actions taken to resolve discrepancies/problem:**

Received black cassettes. No cooler was received, however samples are received in a box with a custody seal. ~ [REDACTED] 10/11/23

Brought by : FedEx

Received by : [REDACTED]

Check in by/date : [REDACTED] / 10/11/2023

ab-s005-0321



10/11/2023 GES - ASRC Industrial ACH

CHAIN-OF-CUSTODY  
RECORDGilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101023ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.	Code   Matrix	Page 1 of 4
	A   Air	
	AQ   Air Quality Control Matrix	
	Code   Container/Preservative	
	1   Filter/No Preservatives	

Equipment:						1						
Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method	Asbestos	Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
									Top - Bottom			
1 FBC-100223	AQ	10/02/2023	0800	[REDACTED]	x	[REDACTED]	FBC	FB1	0.00	0.00	1	
2 MSC01-100223	A	10/03/2023	0645	[REDACTED]	x	[REDACTED]	MSC01	N1	0.00	0.00	1	
3 MSC02-100223	A	10/03/2023	0653	[REDACTED]	x	[REDACTED]	MSC02	N1	0.00	0.00	1	

Turnaround Time: 7 days												
Relinquished by: (Signature)	Date	Time	Received by: (Signature)		Date	Time	Shipping Date / Carrier / Airbill Number					
[REDACTED]	10/10/23	1300	FEDEX		10/10/23	1300	Shipping Date 101023 / FEDEX 7735 0443 8178					
FEDEx	10-11-23	09:13	[REDACTED]		10/11/23	09:13	Received by Laboratory: (Signature, Date, Time) & condition					
							21.6°C IRS					

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101023ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.

Equipment:						Analytical Test Method	Asbestos	Code	Matrix	Page 2 of 4			
Event: Parcel C Asbestos						1		A	Air				
Sample ID	Matrix	Date	Time	Samp Init.				AQ	Air Quality Control Matrix				
1 MSC01-100323	A	10/04/2023	0649	[REDACTED]	x	[REDACTED]	[REDACTED]	10/10/23	MSC01	N1	0.00	0.00	1
2 MSC02-100323	A	10/04/2023	0659	[REDACTED]	x	[REDACTED]	[REDACTED]	10/10/23	MSC02	N1	0.00	0.00	1

04A  
OSA

Turnaround Time: 7 days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date 101023 / FEDEX 7735 0443 8178
FED EX	10-11-23	09:13				Received by Laboratory: (Signature, Date, Time) & condition
						10-11-23 09:13
						21.6°C IRS

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101023ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.	Code Matrix	Page 3 of 4
	A Air	
	AQ Air Quality Control Matrix	
	Code Container/Preservative	
	1 Filter/No Preservatives	
Equipment:	Asbestos	
Event: Parcel C Asbestos	1	

Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method	Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
								Top - Bottom			
1 MSC01-100423	A	10/05/2023	0650	[REDACTED]	[REDACTED]	MSC01	N1	0.00	0.00	1	
2 MSC02-100423	A	10/05/2023	0658	[REDACTED]	[REDACTED]	MSC02	N1	0.00	0.00	1	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 101023 / FEDEX 7735 0443 8178
Fed Ex	10-11-23	10:13				Received by Laboratory: (Signature, Date, Time) & condition [REDACTED] 10-11-23 10:13 21.6°C IRS

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 01023ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	PO# [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

<p>Comments: Please consolidate all COC pages that share the same COC ID into one SDG.</p>										Page 4 of 4																																																			
<table border="1"> <thead> <tr> <th>Code</th> <th>Matrix</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>Filter/No Preservatives</td> </tr> </tbody> </table>										Code	Matrix	A	Air	AQ	Air Quality Control Matrix	Code	Container/Preservative	1	Filter/No Preservatives																																										
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1 MSC01-100523	A	10/05/2023	1430	x	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]																																																				
2 MSC02-100523	A	10/05/2023	1442	x	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]																																																				
<p>Turnaround Time: 7 days</p> <table border="1"> <thead> <tr> <th>Relinquished by: (Signature)</th> <th>Date</th> <th>Time</th> <th>Received by: (Signature)</th> <th>Date</th> <th>Time</th> <th colspan="4">Shipping Date / Carrier / Airbill Number</th> </tr> </thead> <tbody> <tr> <td>[REDACTED]</td> <td>10/10/23</td> <td>1300</td> <td>FEDEX</td> <td>10/10/23</td> <td>1300</td> <td colspan="4">Shipping Date: 101023 / FEDEX 7735 0443 8178</td> </tr> <tr> <td>FedEx</td> <td>10/11/23</td> <td>09:13</td> <td>[REDACTED]</td> <td></td> <td></td> <td colspan="4">Received by Laboratory: (Signature) Date, Time) &amp; condition</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="4">[REDACTED] 10/11/23 09:13</td> </tr> </tbody> </table>										Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number				[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 101023 / FEDEX 7735 0443 8178				FedEx	10/11/23	09:13	[REDACTED]			Received by Laboratory: (Signature) Date, Time) & condition										[REDACTED] 10/11/23 09:13															
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						[REDACTED] 10/11/23 09:13																																																							

**Flow Rate, Total Time**

Sample ID	End Date	End Time	Flow Rate (L/min), Total Time (mins)
FBC-100223	10/2/23	8:00:00 AM	N/A
MSC01-100223	10/3/23	6:45:00 AM	3.5; 1431
MSC02-100223	10/3/23	6:53:00 AM	3.5; 1431
MSC01-100323	10/4/23	6:49:00 AM	3; 1444
MSC02-100323	10/4/23	6:59:00 AM	3.3; 1445
MSC01-100423	10/5/23	6:50:00 AM	3.3; 1439
MSC02-100423	10/5/23	6:58:00 AM	3.5; 1437
MSC01-100523	10/5/23	2:30:00 PM	3.5; 458
MSC02-100523	10/5/23	2:42:00 PM	3.5; 462

ORIGIN ID: ICCA  
 [REDACTED]  
 GES-AIS  
 200 FISHER STREET  
 SAN FRANCISCO, CA 94124  
 UNITED STATES US

SHIP DATE: 02OCT23  
 ACTWGT: 1.00 LB  
 CAD: 254128867/INET4640  
 BILL SENDER

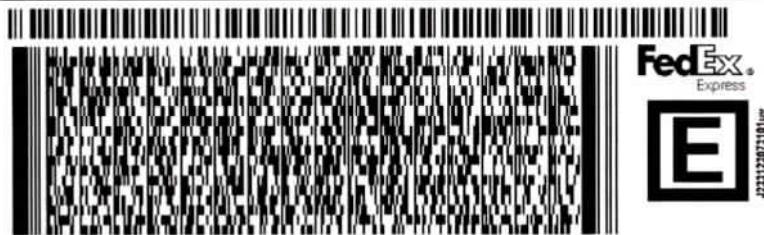
TO [REDACTED]

**A&B LABS**  
**10100 EAST FREEWAY, SUITE 100**

**HOUSTON TX 77029**(713) 453-6060  
 INV  
 PO

REF: J31000600 02.04.05

DEPT



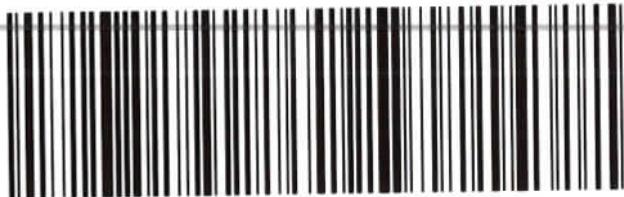
**FedEx**  
 TRK# 7735 0443 8178  
 0201

**WED - 11 OCT AA**  
**STANDARD OVERNIGHT**

**AB HBYA**

77029  
 TX-US IAH

PZ/20 dX3 08p-16/2023



#329747 10/10 583J498869AE3

- After printing this label:**
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
  2. Fold the printed page along the horizontal line.
  3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.**

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# Laboratory Analysis Report

Job ID : 23102009



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

**Client Project Name :**  
**J31000600 / Hunters Point Shipyard, Parcel C Removal Site Evaluation**

<b>Report To :</b>	Client Name: GES - ASRC Industrial	Total Number of Pages: 9
	Attn: [REDACTED]	P.O.#.: J310000600-006
	Client Address: 1501 West Fountainhead Parkway, Ste. #550	Date Received : 10/18/2023 10:01
	City, State, Zip: Tempe, Arizona, 85282	Sample Collected By :

**A&B Labs has analyzed the following samples...**

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
FBC-100923	10/9/2023 8:00	Cassette	23102009.01
MSC01-100923	10/10/2023 6:43	Cassette	23102009.02
MSC02-100923	10/10/2023 6:53	Cassette	23102009.03
MSC01-101023	10/11/2023 6:51	Cassette	23102009.04
MSC02-101023	10/11/2023 7:01	Cassette	23102009.05
MSC01-101123	10/12/2023 6:47	Cassette	23102009.06
MSC02-101123	10/12/2023 6:58	Cassette	23102009.07
MSC01-101223	10/12/2023 15:08	Cassette	23102009.08
MSC02-101223	10/12/2023 14:53	Cassette	23102009.09

[REDACTED]

Released By: [REDACTED]

[REDACTED]

[REDACTED]

Title: Project Manager

10/27/2023

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ab-q210-0321



**ANALYSIS OF AIRBORNE FIBER SAMPLING  
SAMPLING PERFORMED BY CLIENT**  
**ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.**  
**AIHA Lab Accreditation # 101470      TDH PLM/PCM Lab License # 300080**

Date 10/27/202

Job ID : 23102009

Analytical Method: NIOSH 7400-I3-June2019

Client: GES - ASRC Industrial		Project: J31000600 / Hunters Point Shipyard, Parcel C Removal Site Evaluation											Attn:		
A&B Sample ID	Client Sample ID	Collected Date	Area/Person	Flow Rate L/m	Time On	Time Off	Total Time (min)	Volume (Liters)	Total Fields	Total Fibers	F/mm2	Fiber/cc	8 Hour TWA	Analysis Date	Analyzed By
23102009.01	FBC-100923	10/09/2023	Area				0	100	0	0.000			10/23/23		
23102009.02	MSC01-100923	10/10/2023	Area	3.4			1400	4760	100	8.0	10.191	0.001	10/27/23		
23102009.03	MSC02-100923	10/10/2023	Area	3.5			1404	4914	100	3.0	3.822	< 0.001	10/27/23		
23102009.04	MSC01-101023	10/11/2023	Area	3.5			1446	5061	100	4	5.096	< 0.001	10/27/23		
23102009.05	MSC02-101023	10/11/2023	Area	3.5			1446	5061	100	13	16.561	0.001	10/27/23		
23102009.06	MSC01-101123	10/12/2023	Area	3.4			1434	4875.	100	3.5	4.459	< 0.001	10/27/23		
23102009.07	MSC02-101123	10/12/2023	Area	3.4			1436	4882.	100	3	3.822	< 0.001	10/27/23		
23102009.08	MSC01-101223	10/12/2023	Area	3.2			499	1596.	100	6	7.643	0.002	10/27/23		
23102009.09	MSC02-101223	10/12/2023	Area	3.2			473	1513.	100	7	8.917	0.002	10/27/23		

Detection limit of this method is estimated at 7 f/mm<sup>2</sup> (5.5 fibers per 100 fields)

Sr Value

(Fiber Range\*; Sr Value): (5-20; Sr = 0.06), (20-50; Sr = 0.05), (50-100; Sr = 0.04), (>100; Sr = 0.04)

\*Fiber Range = # of Fibers / 100 Counts

OUTR = Overload,Unable To Read



## Sample Condition Checklist

A&B JobID : <b>23102009</b>	Date Received : <b>10/18/2023</b>	Time Received : <b>10:01AM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>20.6°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
1.	Cooler Seal present and signed.	X		
2.	Sample(s) in a cooler.		X	
3.	If yes, ice in cooler.			X
4.	Sample(s) received with chain-of-custody.	X		
5.	C-O-C signed and dated.	X		
6.	Sample(s) received with signed sample custody seal.		X	
7.	Sample containers arrived intact. (If No comment)	X		
8.	Matrix: Water <input type="checkbox"/> Soil <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge <input type="checkbox"/> Solid <input type="checkbox"/> Cassette <input checked="" type="checkbox"/> Tube <input type="checkbox"/> Bulk <input type="checkbox"/> Badge <input type="checkbox"/> Food <input type="checkbox"/> Other <input type="checkbox"/>			
9.	Samples were received in appropriate container(s)	X		
10.	Sample(s) were received with Proper preservative			X
11.	All samples were tagged or labeled.	X		
12.	Sample ID labels match C-O-C ID's.	X		
13.	Bottle count on C-O-C matches bottles found.	X		
14.	Sample volume is sufficient for analyses requested.	X		
15.	Samples were received with in the hold time.	X		
16.	VOA vials completely filled.			X
17.	Sample accepted.	X		
18.	Has client been contacted about sub-out			X

**Comments : Include actions taken to resolve discrepancies/problem:**

No cooler was received, however samples are received in a box with a custody seal. Black Cassettes. ~ [REDACTED] 10/18/2023

Brought by : FedEx

Received by : [REDACTED]

Check in by/date : [REDACTED] / 10/18/2023

ab-s005-0321

Phone : 713-453-6060

www.ablabs.com

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 01723ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.					Code   Matrix		Page 1 of 4				
					A	Air					
					AQ	Air Quality Control Matrix					
					Code	Container/Preservative					
					1	Filter/No Preservatives					
Equipment:					Analytical Test Method						
Event: Parcel C Asbestos					1						
01A	Sample ID	Matrix	Date	Time	Samp Init.		Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments
02B	1 FBC-100923	AQ	10/09/2023	0800	x		FBC	FB1	0.00	0.00	1
03C	2 MSC01-100923	A	10/10/2023	0643	x		MSC01	N1	0.00	0.00	1
	3 MSC02-100923	A	10/10/2023	0653	x		MSC02	N1	0.00	0.00	1
Turnaround Time: 7 days											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)			Date	Time	Shipping Date / Carrier / Airbill Number		
[REDACTED]		10/17/23	1300	FEDEX			10/17/23	1300	Shipping Date: 101723 / FEDEX 7735 5882 7193		
FedEx		10/18/23	10:01	[REDACTED]			10/18/23	10:01	Carrier: (Signature, Date, Time) & condition 10/18/23 10:01 20.6 °C hrs [REDACTED]		

Job ID: 23102009



10/18/2023

GES - ASRC Industrial

ACH

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101723ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

<p>Comments: Please consolidate all COC pages that share the same COC ID into one SDG.</p>						<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> </tr> </table>		Code	Matrix	A	Air	AQ	Air Quality Control Matrix	Page 2 of 4																																			
Code	Matrix																																																
A	Air																																																
AQ	Air Quality Control Matrix																																																
<table border="1"> <tr> <td>Equipment:</td> <td>Analytical Test Method</td> <td>Asbestos</td> <td>[REDACTED]</td> <td>[REDACTED]</td> <td>[REDACTED]</td> <td>[REDACTED]</td> <td>[REDACTED]</td> <td>[REDACTED]</td> <td>[REDACTED]</td> </tr> <tr> <td colspan="6"></td> <td>1</td> <td colspan="4"></td> </tr> </table>						Equipment:	Analytical Test Method	Asbestos	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]							1																											
Equipment:	Analytical Test Method	Asbestos	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]																																								
						1																																											
<table border="1"> <tr> <td>Event: Parcel C Asbestos</td> <td>1</td> <td colspan="4"></td> </tr> </table>						Event: Parcel C Asbestos	1					<table border="1"> <tr> <td>Location ID</td> <td>Sample Type</td> <td colspan="2">Depth (ft bgs)</td> <td>Cooler</td> <td>Comments</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Top - Bottom</td> <td colspan="2"></td> </tr> </table>			Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments			Top - Bottom																										
Event: Parcel C Asbestos	1																																																
Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments																																												
		Top - Bottom																																															
04/01	Sample ID	Matrix	Date	Time	Samp Init.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MSC01	N1	0.00	0.00	1																																			
05/01	1 MSC01-101023	A	10/11/2023	0651	x	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MSC02	N1	0.00	0.00	1																																			
<p>Turnaround Time: 7 days</p>						<table border="1"> <tr> <td>Relinquished by: (Signature)</td> <td>Date</td> <td>Time</td> <td>Received by: (Signature)</td> <td>Date</td> <td>Time</td> <td>Shipping Date / Carrier / Airbill Number</td> </tr> <tr> <td>[REDACTED]</td> <td>10/17/23</td> <td>1300</td> <td>FEDEX</td> <td>10/17/23</td> <td>1300</td> <td>Shipping Date: 101723 / FEDEX 7735 5882 7193</td> </tr> <tr> <td><i>FEDEX</i></td> <td>10/18/23</td> <td>10:01</td> <td></td> <td></td> <td></td> <td>Received by Laboratory: (Signature, Date, Time)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><i>FEDEX 10/18/23 10:01</i></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><i>10/18/23</i></td> </tr> </table>									Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number	[REDACTED]	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 101723 / FEDEX 7735 5882 7193	<i>FEDEX</i>	10/18/23	10:01				Received by Laboratory: (Signature, Date, Time)							<i>FEDEX 10/18/23 10:01</i>							<i>10/18/23</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number																																											
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**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101723ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.					Code Matrix		Page 3 of 4				
					A	Air					
					AQ	Air Quality Control Matrix					
					Code Container/Preservative						
					1	Filter/No Preservatives					
Equipment:											
Event: Parcel C Asbestos					1						
Sample ID	Matrix	Date	Time	Samp Init.	Asbestos	Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
								Top - Bottom			
1 MSC01-101123	A	10/12/2023	0647	[REDACTED]	x	MSC01	N1	0.00	0.00	1	
2 MSC02-101123	A	10/12/2023	0658	[REDACTED]	x	MSC02	N1	0.00	0.00	1	
Turnaround Time: 7 days											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Shipping Date / Carrier / Airbill Number			
[REDACTED]		10/17/23	1300	FEDEX		10/17/23	1300	Shipping Date: 101723 / FEDEX 7735 5882 7193			
Fay		10/18/23	10:01					tory: (Signature, Date, Time) & condition			
								10:01 10/18/23 20.6°C Ins			

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 101723ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.		Analytical Test Method  Asbestos  1  Equipment:  Event: Parcel C Asbestos	Code Matrix A Air AQ Air Quality Control Matrix			Page 4 of 4					
			Code Container/Preservative 1 Filter/No Preservatives								
08A 09B	Sample ID	Matrix	Date	Time	Samp Init.	Location ID MSC01 MSC02	Sample Type N1 N1	Depth (ft bgs) Top - Bottom		Cooler	Comments
	1 MSC01-101223	A	10/12/2023	1508	x			[REDACTED]	10/17/23		
	2 MSC02-101223	A	10/12/2023	1453	x					1	
Turnaround Time: 7 days											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)			Date	Time	Shipping Date / Carrier / Airbill Number		
[REDACTED]		10/17/23	1300	FEDEX			10/17/23	1300	Shipping Date: 101723 / FEDEX 7735 5882 7193		
feds		10/18/23	10:01						(Signature, Date, Time) & condition 10/18/23 10:01 20.6 °C		

**Flow Rate, Total Time**

Sample ID	End Date	End Time	Flow Rate (L/min), Total Time (mins)
FBC-100923	10/9/23	8:00:00 AM	N/A
MSC01-100923	10/10/23	6:43:00 AM	3.4; 1400
MSC02-100923	10/10/23	6:53:00 AM	3.5; 1404
MSC01-101023	10/11/23	6:51:00 AM	3.5; 1446
MSC02-101023	10/11/23	7:01:00 AM	3.5; 1446
MSC01-101123	10/12/23	6:47:00 AM	3.4; 1434
MSC02-101123	10/12/23	6:58:00 AM	3.4; 1436
MSC01-101223	10/12/23	3:08:00 PM	3.2; 499
MSC02-101223	10/12/23	2:53:00 PM	3.2; 473

ORIGIN ID:JCCA  
[REDACTED]  
GES-AIS  
200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 02OCT23  
ACTWGT: 1.00 LB  
CAD: 254128867/INET4640

BILL SENDER

TO [REDACTED]

**A&B LABS**  
**10100 EAST FREEWAY, SUITE 100**

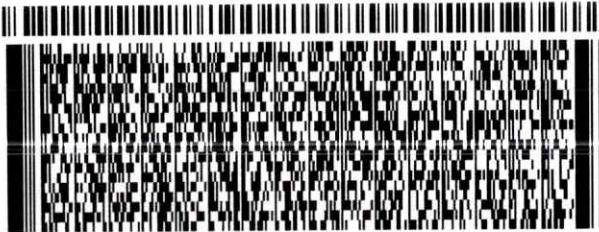
**HOUSTON TX 77029**

(713) 453-6060

INV/  
PO

REF J31000 600 02 04 05

DEPT



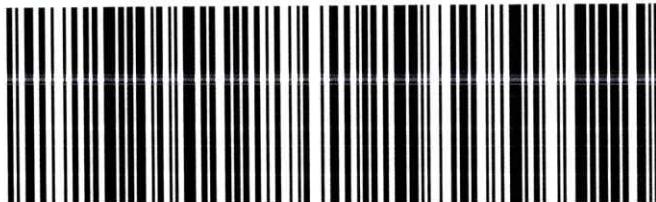
583348835/0AE3

TUE - 03 OCT 5:00P  
STANDARD OVERNIGHT

TRK# 7735 5882 7193

**AB HBYA**

77029  
TX-US IAH



- After printing this label:**
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
  2. Fold the printed page along the horizontal line.
  3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.**  
 Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

# Laboratory Analysis Report

Job ID : 23102779



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

**Client Project Name :**  
**J310000600 / Hunters Point Shipyard, Parcel C Removal Site Evaluation**

<b>Report To :</b>	Client Name: GES - ASRC Industrial	Total Number of Pages: 9
	Attn: [REDACTED]	P.O.#.: J310000600-006
	Client Address: 1501 West Fountainhead Parkway, Ste. #550	Date Received : 10/25/2023 10:10
	City, State, Zip: Tempe, Arizona, 85282	Sample Collected By :

**A&B Labs has analyzed the following samples...**

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
FBC-101623	10/16/2023 8:00	Cassette	23102779.01
MSC01-101623	10/17/2023 6:47	Cassette	23102779.02
MSC02-101623	10/17/2023 6:56	Cassette	23102779.03
MSC01-101723	10/18/2023 6:47	Cassette	23102779.04
MSC02-101723	10/18/2023 6:56	Cassette	23102779.05
MSC01-101823	10/19/2023 7:08	Cassette	23102779.06
MSC02-101823	10/19/2023 7:12	Cassette	23102779.07
MSC01-101923	10/19/2023 14:58	Cassette	23102779.08
MSC02-101923	10/19/2023 14:28	Cassette	23102779.09

[REDACTED]  
Released By: [REDACTED]

Title: Vice President Operations

Analyst: [REDACTED]

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Any TWA calculations are based on client supplied data not lab observation.

ab-q210-0321

11/1/2023



**ANALYSIS OF AIRBORNE FIBER SAMPLING  
SAMPLING PERFORMED BY CLIENT**

**ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.  
AIHA Lab Accreditation # 101470      TDH PLM/PCM Lab License # 300080**

Date 11/1/2023

Job ID : 23102779

Analytical Method: NIOSH 7400-I3-June2019

Client: GES - ASRC Industrial		Project: J310000600 / Hunters Point Shipyard, Parcel C Removal Site Evaluation											Attn:		
A&B Sample ID	Client Sample ID	Collected Date	Area/Person	Flow Rate L/m	Time On	Time Off	Total Time (min)	Volume (Liters)	Total Fields	Total Fibers	F/mm2	Fiber/cc	8 Hour TWA	Analysis Date	Analyzed By
23102779.01	FBC-101623	10/16/2023					0	100	0	0.000			10/27/23		
23102779.02	MSC01-101623	10/17/2023	Area	3.6			1434	5162.	100	11.5	1.274	< 0.001		10/27/23	
23102779.03	MSC02-101623	10/17/2023	Area	3.4			1434	4875.	100	3	3.822	< 0.001		10/27/23	
23102779.04	MSC01-101723	10/18/2023	Area	3.6			1438	5176.	100	5.0	6.369	< 0.001		10/27/23	
23102779.05	MSC02-101723	10/18/2023	Area	3.3			1438	4745.	100	1.0	1.274	< 0.001		10/27/23	
23102779.06	MSC01-101823	10/19/2023	Area	3.5			1460	5110	100	3.5	4.459	< 0.001		10/27/23	
23102779.07	MSC02-101823	10/19/2023	Area	3.3			1454	4798.	100	4.0	5.096	< 0.001		10/27/23	
23102779.08	MSC01-101923	10/19/2023	Area	3.3			473	1560.	100	8.5	10.828	0.003		10/27/23	
23102779.09	MSC02-101923	10/19/2023	Area	3.3			434	1432.	100	7.5	9.554	0.003		10/27/23	

Detection limit of this method is estimated at 7 f/mm<sup>2</sup> (5.5 fibers per 100 fields)

Sr Value

(Fiber Range\*; Sr Value): (5-20; Sr = 0.06), (20-50; Sr = 0.05), (50-100; Sr = 0.04), (>100; Sr = 0.04)

\*Fiber Range = # of Fibers / 100 Counts

OUTR = Overload, Unable To Read



## Sample Condition Checklist

A&B JobID : <b>23102779</b>	Date Received : <b>10/25/2023</b>	Time Received : <b>10:10AM</b>										
Client Name : <b>GES - ASRC Industrial</b>												
Temperature : <b>23.1°C</b>	Sample pH : <b>NA</b>											
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>											
Perservative :												
	<b>Check Points</b>				<b>Yes</b>	<b>No</b>	<b>N/A</b>					
1.	<b>Cooler Seal present and signed.</b>				X							
2.	<b>Sample(s) in a cooler.</b>					X						
3.	<b>If yes, ice in cooler.</b>						X					
4.	<b>Sample(s) received with chain-of-custody.</b>				X							
5.	<b>C-O-C signed and dated.</b>				X							
6.	<b>Sample(s) received with signed sample custody seal.</b>					X						
7.	<b>Sample containers arrived intact. (If No comment)</b>				X							
8.	Matrix:	Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input type="checkbox"/>	Cassette <input checked="" type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>
9.	<b>Samples were received in appropriate container(s)</b>					X						
10.	<b>Sample(s) were received with Proper preservative</b>						X					
11.	<b>All samples were tagged or labeled.</b>					X						
12.	<b>Sample ID labels match C-O-C ID's.</b>					X						
13.	<b>Bottle count on C-O-C matches bottles found.</b>					X						
14.	<b>Sample volume is sufficient for analyses requested.</b>					X						
15.	<b>Samples were received with in the hold time.</b>					X						
16.	<b>VOA vials completely filled.</b>						X					
17.	<b>Sample accepted.</b>					X						
18.	<b>Has client been contacted about sub-out</b>							X				

**Comments : Include actions taken to resolve discrepancies/problem:**

No cooler was received, however samples are received in a box with a custody seal. Received black cassettes. ~ [REDACTED] 10/25/23

Brought by : FedEx

Received by : [REDACTED]

Check in by/date : [REDACTED] / 10/25/2023

ab-s005-0321

Job ID:23102779



10/25/2023 GES - ASRC Industrial ACH

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 102423ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

**Comments:** Please consolidate all COC pages that share the same COC ID into one SDG.

Page 1 of 4

Code	Matrix
A	Air
AQ	Air Quality Control Matrix
Code	Container/Preservative
1	Filter/No Preservatives

**Equipment:**

Event: Parcel C Asbestos					1									
	Sample ID	Matrix	Date	Time	Samp Init.				Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
											Top - Bottom			
1	FBC-101623	AQ	10/16/2023	0800		x			FBC	FB1	0.00	0.00	1	
2	MSC01-101623	A	10/17/2023	0647		x			MSC01	N1	0.00	0.00	1	
3	MSC02-101623	A	10/17/2023	0656		x			MSC02	N1	0.00	0.00	1	

Turnaround Time: 7 days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date: 101723 / FEDEX 7736 6627 9986
fedex	10/25/23	10:10 10:32 AM				Signature, Date, Time) & condition 10/25/23 23.1 °C

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 102423ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

Comments: Please consolidate all COC pages that share the same COC ID into one SDG.	Code   Matrix	Page 2 of 4
	A   Air	
	AQ   Air Quality Control Matrix	
	Code   Container/Preservative	
	1   Filter/No Preservatives	

Equipment:						Analytical Test Method	Asbestos	1	10/24/23	Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments
	Sample ID	Matrix	Date	Time	Samp Init.							Top - Bottom		
1	MSC01-101723	A	10/18/2023	0647	[REDACTED]	x	[REDACTED]	[REDACTED]	10/24/23	MSC01	N1	0.00	0.00	1
2	MSC02-101723	A	10/18/2023	0656	[REDACTED]	x	[REDACTED]	[REDACTED]	10/24/23	MSC02	N1	0.00	0.00	1

Turnaround Time: 7 days	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
	[REDACTED]	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date 102423 / FEDEX 7736 6627 9986
05/08		10/25/23	10:30	[REDACTED]	10/25/23	10:30	[REDACTED] Signature, Date, Time) & condition 10-22-23. 10/25/23 23.1°C JWS [REDACTED]

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 102423ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

<p>Comments: Please consolidate all COC pages that share the same COC ID into one SDG.</p>										Page 3 of 4																																																																
<table border="1"> <thead> <tr> <th>Code</th> <th>Matrix</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Code</th> <th>Container/Preservative</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Filter/No Preservatives</td> </tr> </tbody> </table>										Code	Matrix	A	Air	AQ	Air Quality Control Matrix	Code	Container/Preservative	1	Filter/No Preservatives																																																							
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**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal [REDACTED]  
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 102423ASBC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: A&B Labs	Event: Parcel C Asbestos
Project Number: J31000600	POC: [REDACTED]	
WBS Code: J31000600	Ship to: 10100 East Fwy Ste. 100 Houston TX 77029	

**Comments:** Please consolidate all COC pages that share the same COC ID into one SDG.

Asbestos	10/24/23
Analytical Test Method	

Code	Matrix
A	Air
AQ	Air Quality Control Matrix

Code	Container/Preservative
t	Filter/No Preservatives

Page 4 of 4

**Equipment:**

Event: Parcel C Asbestos						1							
	Sample ID	Matrix	Date	Time	Samp Init.				Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments
											Top - Bottom		
1	MSC01-101923	A	10/19/2023	1458	x			10/24/23	MSC01	N1	0.00	0.00	1
2	MSC02-101923	A	10/19/2023	1428	x				MSC02	N1	0.00	0.00	1

**Tumaround Time: 7 days**

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/24/23	1300	FEDEX [REDACTED] [REDACTED] marts	10/24/23	1300	Shipping Date 102423 / FEDEX 7736 6627 9986 [REDACTED] by: (Signature, Date, Time) & con [REDACTED] 10/10 Feds 10/25/23 10:57 10:10 10:10 AM 10/25/23 10:57 10:10 10:10 AM

COC ID # █102423ASBC

**Flow Rate, Total Time**

Sample ID	End Date	End Time	Flow Rate (L/min), Total Time (mins)
FBC-101623	10/16/23	8:00:00 AM	N/A
MSC01-101623	10/17/23	6:47:00 AM	3.6; 1434
MSC02-101623	10/17/23	6:56:00 AM	3.4; 1434
MSC01-101723	10/18/23	6:47:00 AM	3.6; 1438
MSC02-101723	10/18/23	6:56:00 AM	3.3; 1438
MSC01-101823	10/19/23	7:08:00 AM	3.5; 1460
MSC02-101823	10/19/23	7:12:00 AM	3.3; 1454
MSC01-101923	10/19/23	2:58:00 PM	3.3; 473
MSC02-101923	10/19/23	2:28:00 PM	3.3; 434

ORIGIN ID:JCCA  
[REDACTED]  
GES-AIS  
200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 17OCT23  
ACTWGT: 1.00 LB  
CAD: 254128867/INET4640

BILL SENDER

TO [REDACTED]

**A&B LABS**  
**10100 EAST FREEWAY, SUITE 100**

**HOUSTON TX 77029**

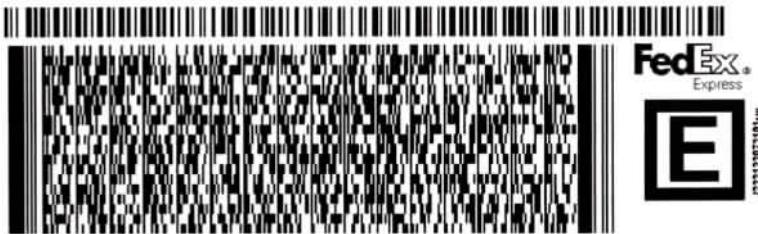
(713) 453-6060

REF JG1000 600 02 04 05

INV

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DEPT

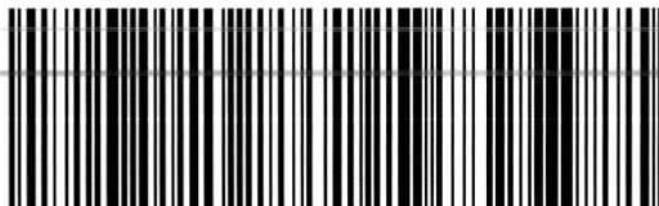


WED - 18 OCT 5:00P  
STANDARD OVERNIGHT

TRK#  
0201 7736 6627 9986

**AB HBYA**

77029  
TX-US IAH

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
  2. Fold the printed page along the horizontal line.
  3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.
- Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.**
- Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



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Port Allen, Louisiana 70767  
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## ARS Aleut Analytical, LLC

### Laboratory Analytical Report

ARS1-23-02073

GES-AIS, LLC  
[REDACTED]

1501 West Fountainhead Parkway  
Suite 550  
Tempe, AZ 94520  
[REDACTED]  
[REDACTED]

COC Number: [REDACTED] 091923RADC

PO Number: J310000600

Job Location: Hunters Point Shipyard, Parcel C Removal Site Evaluation

Project Name: Parcel C Air Monitoring RAD

Questions regarding this analytical report should be addressed to ARS project manager, [REDACTED], who can be reached by email at [projectmanagers@aaa.aleutfederal.com](mailto:projectmanagers@aaa.aleutfederal.com).

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. I authorize release and issuance of this report on the date signed below.

[REDACTED] Laboratory Management, ARS Aleut Analytical

Signature

Date

Title

*This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.*





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## Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312024-02
New Jersey	LA009
New York	66780 (NPW) / 66781 (SHW)
Texas	T104704447-22-18
Utah	LA011312023-14
Washington	C1010

For additional information related to the specific matrices, methods, and analytes recognized by each accrediting body, contact us at [QA@aaa.aleutfederal.com](mailto:QA@aaa.aleutfederal.com) for additional information.



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

# **Case Narrative**



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

**PROJECT SAMPLE IDENTIFICATION  
CROSS-REFERENCE  
TO ARS SAMPLE LABORATORY IDs**

Client Sample ID	ARS Aleut Analytical Sample ID
FBC-091123	ARS1-23-02073-001
MSC01-091123	ARS1-23-02073-002
MSC01-091123-D	ARS1-23-02073-003
MSC02-091123	ARS1-23-02073-004

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	09/11/23 08:00	09/20/23	ASP-PU239-AF	As Received	10/16/23 08:00	10/18/23 20:40
001	09/11/23 08:00	09/20/23	ASP-TH-AF	As Received	10/13/23 10:30	10/18/23 20:38
001	09/11/23 08:00	09/20/23	GAM-A-AF	As Received	NA	10/08/23 12:00
001	09/11/23 08:00	09/20/23	GPC-SR90-AF	As Received	10/19/23 07:46	10/20/23 10:24
002	09/14/23 15:03	09/20/23	ASP-PU239-AF	As Received	10/16/23 08:00	10/18/23 20:40
002	09/14/23 15:03	09/20/23	ASP-TH-AF	As Received	10/13/23 10:30	10/18/23 20:38
002	09/14/23 15:03	09/20/23	GAM-A-AF	As Received	NA	10/08/23 12:02
002	09/14/23 15:03	09/20/23	GPC-SR90-AF	As Received	10/19/23 07:46	10/20/23 10:24
003	09/14/23 15:04	09/20/23	ASP-PU239-AF	As Received	10/16/23 08:00	10/18/23 20:40
003	09/14/23 15:04	09/20/23	ASP-TH-AF	As Received	10/13/23 10:30	10/18/23 20:38
003	09/14/23 15:04	09/20/23	GAM-A-AF	As Received	NA	10/10/23 14:35
003	09/14/23 15:04	09/20/23	GPC-SR90-AF	As Received	10/19/23 07:46	10/20/23 10:24
004	09/14/23 15:03	09/20/23	ASP-PU239-AF	As Received	10/16/23 08:00	10/18/23 20:40
004	09/14/23 15:03	09/20/23	ASP-TH-AF	As Received	10/13/23 10:30	10/18/23 20:38



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Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
004	09/14/23 15:03	09/20/23	GAM-A-AF	As Received	NA	10/09/23 14:09
004	09/14/23 15:03	09/20/23	GPC-SR90-AF	As Received	10/19/23 07:46	10/20/23 10:24

### SAMPLE RECEIPT/PREP

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.

### ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)"**.

Th-232 analysis was performed using **PALA-RAD-031, "Thorium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom ACW-08 & Eichrom ACW-10)"**.

Ac-228, Am-241, Bi-212, Bi-214, Co-60, Cs-137, Eu-152, Eu-154, K-40, Pa-234, Pb-210, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, Tl-208, U-235, and U-238 analyses were performed using **PALA-RAD-007, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)"**.

Sr-90 analysis was performed using **PALA-RAD-032, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)"**.

### ANALYTICAL RESULTS

Fraction 001 in batch ARS1-B23-01913 has elevated MDA for Pu-239/240 with ACT of -5.839E-8 uCi/filter, MDA of 1.222E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01908 has elevated MDA for Th-232 with ACT of 5.494E-8 uCi/filter, MDA of 8.252E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of -1.320E-5 uCi/filter, MDA of 1.620E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-01913 has elevated MDA for Pu-239/240 with ACT of -6.655E-9 uCi/filter, MDA of 7.166E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of -3.928E-6 uCi/filter, MDA of 9.869E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01913 has elevated MDA for Pu-239/240 with ACT of 6.785E-9 uCi/filter, MDA of 7.307E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of 3.817E-6 uCi/filter, MDA of 9.800E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 004 in batch ARS1-B23-01913 has elevated MDA for Pu-239/240 with ACT of -3.203E-8 uCi/filter, MDA



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of 1.116E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 004 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of 4.065E-7 uCi/filter, MDA of 9.312E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-01908: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01913: ROI's adjusted to better fit the peaks of interest.

# Notes (Case Narrative)

## Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit
SDG	Sample Deliverable Group

## Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory.
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
#	Method/Matrix/Analyte not accredited for this certification

## Radiochemistry Comments:

- 1.0) All MDA values are calculated on a sample specific basis.
- 2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
- 3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
- 4.0) Ra-226 after a 21-day ingrowth period is determined via secular equilibrium with its daughter, Bismuth 214 (Gamma Spectroscopy only).
- 5.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
- 6.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
- 7.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (HPGe).
- 8.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
- 9.0) Gamma spectroscopy results are calculated values based on the ORTEC® GammaVision ENV32 Analysis Engine.
- 10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**: Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Am-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCW02)
- 11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)
- 12.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

## General Comments:

- 1.0) Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "M" or "Mod" to the procedure number (i.e. 901.1M, 901.1 Mod).
- 2.0) All NIOSH method results are reported without blank corrections applied.
- 3.0) Basis: "As Received" = analyzed as received from client; "Dry" = dried prior to being analyzed; "Dry Weight Corrected" = analyzed as received; result corrected for percent moisture.



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Analytical Results**



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(225) 228-1394

**ARS Sample Delivery Group:** ARS1-23-02073**Request or PO Number:** J310000600**Client Sample ID:** FBC-091123**ARS Sample ID:** ARS1-23-02073-001**Sample Collection Date:** 09/11/23 8:00**Date Received:** 09/20/23**Sample Matrix:** Air Filter**Report Date:** 10/24/23**Percent Solids:** N/A

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01913-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-5.839E-8	4.975E-8	1.222E-7	5.229E-8	4.8E-08	U	uCi/filter	10/18/23 20:40	[REDACTED]	67.9%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01908-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	5.494E-8	5.317E-8	8.252E-8	3.381E-8	1.4E-08	U	uCi/filter	10/18/23 20:38	[REDACTED]	75.1%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	5.603E-6	2.354E-6	2.202E-6	1.101E-6	NP		uCi/filter	10/08/23 12:00	[REDACTED]	N/A
Co-60	-1.541E-8	9.393E-7	1.037E-6	5.185E-7	0.00024	U	uCi/filter	10/08/23 12:00	[REDACTED]	N/A
Cs-137	3.201E-7	8.012E-7	9.322E-7	4.661E-7	0.00048	U	uCi/filter	10/08/23 12:00	[REDACTED]	N/A
Pb-214	3.095E-6	1.979E-6	1.915E-6	9.575E-7	NP		uCi/filter	10/08/23 12:00	[REDACTED]	N/A
Ra-226	-1.320E-5	1.580E-5	1.620E-5	8.100E-6	4.4E-06	U	uCi/filter	10/08/23 12:00	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01945-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	8.572E-7	2.185E-6	3.811E-6	1.764E-6	2.4E-05	U	uCi/filter	10/20/23 10:24	[REDACTED]	105%



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**ARS Sample Delivery Group:** ARS1-23-02073**Client Sample ID:** MSC01-091123**Sample Collection Date:** 09/14/23 15:03**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-02073-002**Date Received:** 09/20/23**Report Date:** 10/24/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01913-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-6.655E-9	2.918E-8	7.166E-8	2.682E-8	4.8E-08	U	uCi/filter	10/18/23 20:40	[REDACTED]	58.7%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01908-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	1.507E-7	5.780E-8	1.408E-8	0.000	1.4E-08		uCi/filter	10/18/23 20:38	[REDACTED]	83.1%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	3.680E-6	9.909E-7	1.214E-6	6.070E-7	NP		uCi/filter	10/08/23 12:02	[REDACTED]	N/A
Co-60	-3.202E-7	8.593E-7	8.788E-7	4.394E-7	0.00024	U	uCi/filter	10/08/23 12:02	[REDACTED]	N/A
Cs-137	-4.373E-7	7.705E-7	8.282E-7	4.141E-7	0.00048	U	uCi/filter	10/08/23 12:02	[REDACTED]	N/A
Pb-214	4.509E-6	1.029E-6	1.121E-6	5.605E-7	NP		uCi/filter	10/08/23 12:02	[REDACTED]	N/A
Ra-226	-3.928E-6	7.849E-6	9.869E-6	4.935E-6	4.4E-06	U	uCi/filter	10/08/23 12:02	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01945-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.894E-6	3.128E-6	5.305E-6	2.508E-6	2.4E-05	U	uCi/filter	10/20/23 10:24	[REDACTED]	101%



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**ARS Sample Delivery Group:** ARS1-23-02073**Client Sample ID:** MSC01-091123-D**Sample Collection Date:** 09/14/23 15:04**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-02073-003**Date Received:** 09/20/23**Report Date:** 10/24/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01913-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	6.785E-9	3.520E-8	7.307E-8	2.734E-8	4.8E-08	U	uCi/filter	10/18/23 20:40	[REDACTED]	63.1%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01908-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	8.514E-8	4.615E-8	4.653E-8	1.648E-8	1.4E-08		uCi/filter	10/18/23 20:38	[REDACTED]	83.5%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	3.957E-6	1.269E-6	1.447E-6	7.235E-7	NP		uCi/filter	10/10/23 14:35	[REDACTED]	N/A
Co-60	5.127E-8	8.581E-7	8.857E-7	4.429E-7	0.00024	U	uCi/filter	10/10/23 14:35	[REDACTED]	N/A
Cs-137	-1.198E-7	7.307E-7	7.933E-7	3.967E-7	0.00048	U	uCi/filter	10/10/23 14:35	[REDACTED]	N/A
Pb-212	1.160E-6	4.612E-7	7.073E-7	3.537E-7	NP		uCi/filter	10/10/23 14:35	[REDACTED]	N/A
Pb-214	3.531E-6	9.522E-7	1.101E-6	5.505E-7	NP		uCi/filter	10/10/23 14:35	[REDACTED]	N/A
Ra-226	3.817E-6	7.791E-6	9.800E-6	4.900E-6	4.4E-06	U	uCi/filter	10/10/23 14:35	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01945-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	4.238E-7	2.255E-6	4.010E-6	1.859E-6	2.4E-05	U	uCi/filter	10/20/23 10:24	[REDACTED]	101%



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**ARS Sample Delivery Group:** ARS1-23-02073**Client Sample ID:** MSC02-091123**Sample Collection Date:** 09/14/23 15:03**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-02073-004**Date Received:** 09/20/23**Report Date:** 10/24/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01913-07

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-3.203E-8	4.879E-8	1.116E-7	4.713E-8	4.8E-08	U	uCi/filter	10/18/23 20:40	[REDACTED]	63.6%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01908-07

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	1.197E-7	5.300E-8	3.830E-8	1.210E-8	1.4E-08		uCi/filter	10/18/23 20:38	[REDACTED]	82.3%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-07

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	3.820E-6	1.161E-6	1.342E-6	6.710E-7	NP		uCi/filter	10/09/23 14:09	[REDACTED]	N/A
Co-60	-3.588E-7	8.692E-7	8.875E-7	4.438E-7	0.00024	U	uCi/filter	10/09/23 14:09	[REDACTED]	N/A
Cs-137	2.395E-8	6.527E-7	7.127E-7	3.564E-7	0.00048	U	uCi/filter	10/09/23 14:09	[REDACTED]	N/A
K-40	1.297E-5	6.915E-6	7.602E-6	3.801E-6	NP		uCi/filter	10/09/23 14:09	[REDACTED]	N/A
Pb-214	2.795E-6	9.730E-7	1.168E-6	5.840E-7	NP		uCi/filter	10/09/23 14:09	[REDACTED]	N/A
Ra-226	4.065E-7	7.337E-6	9.312E-6	4.656E-6	4.4E-06	U	uCi/filter	10/09/23 14:09	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01945-07

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	3.688E-7	2.234E-6	3.989E-6	1.845E-6	2.4E-05	U	uCi/filter	10/20/23 10:24	[REDACTED]	104%



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

# **GES-AIS, LLC**

## **Batch QC**



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01837
SDG	ARS1-23-02073
Analysis	Gamma Spec (Short) in (Air Filters, Smears [AF])
Method	EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/09/23 10:35	Analysis Technician		
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01837-01	LCS	AM-241	31.060	2.364	33.065	93.9	0.120
ARS1-B23-01837-01	LCS	CO-60	21.348	1.268	20.928	102.0	0.374
ARS1-B23-01837-01	LCS	CS-137	13.421	0.875	12.996	103.3	0.065

Duplicate RER/DER/RPD			Analysis Date	10/09/23 10:52	Analysis Technician		
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
AM-241	31.060	2.364	31.108	2.368	0.028	0.2	
CO-60	21.348	1.268	20.374	1.225	1.082	4.7	
CS-137	13.421	0.875	13.240	0.864	0.289	1.4	

Method Blank			Analysis Date	10/08/23 11:59	Analysis Technician		
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01837-03	MBL	AC-228	-0.001	0.007	0.006	U	
ARS1-B23-01837-03	MBL	AM-241	-2.479E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	BI-212	0.006	0.011	0.012	U	
ARS1-B23-01837-03	MBL	BI-214	0.001	0.004	0.004	U	
ARS1-B23-01837-03	MBL	CO-60	-5.582E-4	0.002	0.002	U	
ARS1-B23-01837-03	MBL	CS-137	4.181E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	EU-152	5.982E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	EU-154	-2.840E-5	9.994E-4	0.001	U	
ARS1-B23-01837-03	MBL	K-40	0.004	0.020	0.021	U	
ARS1-B23-01837-03	MBL	PA-234	7.669E-4	0.002	0.002	U	
ARS1-B23-01837-03	MBL	PB-210	-0.013	0.017	0.018	U	
ARS1-B23-01837-03	MBL	PB-212	1.286E-4	0.002	0.003	U	
ARS1-B23-01837-03	MBL	PB-214	-1.087E-4	0.003	0.003	U	
ARS1-B23-01837-03	MBL	RA-226	-0.092	0.035	0.032	U	
ARS1-B23-01837-03	MBL	RA-228	-0.001	0.007	0.006	U	
ARS1-B23-01837-03	MBL	TH-234	1.417E-4	0.016	0.017	U	
ARS1-B23-01837-03	MBL	TL-208	-0.002	0.002	0.002	U	
ARS1-B23-01837-03	MBL	U-235	0.002	0.005	0.008	U	
ARS1-B23-01837-03	MBL	U-238	1.417E-4	0.016	0.017	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01908
SDG	ARS1-23-02073
Analysis	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW10
Analysis Code	ASP-TH-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/18/23 20:38	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01908-01	LCS	TH-230	5.999E-6	7.517E-7	5.464E-6	109.8	1.834E-8

Duplicate RER/DER/RPD			Analysis Date	10/18/23 20:38	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
TH-230	5.999E-6	7.517E-7	5.887E-6	7.378E-7	0.208	1.9	

Method Blank			Analysis Date	10/18/23 20:38	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01908-03	MBL	TH-228	-1.895E-8	8.123E-8	1.581E-7	U	
ARS1-B23-01908-03	MBL	TH-230	8.136E-8	7.723E-8	1.219E-7	U	
ARS1-B23-01908-03	MBL	TH-232	1.249E-8	2.453E-8	4.599E-8	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01913
SDG	ARS1-23-02073
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW03
Analysis Code	ASP-PU239-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/18/23 20:40	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01913-01	LCS	PU-239/240	7.631E-6	9.528E-7	7.620E-6	100.1	2.341E-8

Duplicate RER/DER/RPD			Analysis Date	10/18/23 20:40	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
PU-239/240	7.631E-6	9.528E-7	7.433E-6	9.319E-7	0.291	2.6	

Method Blank			Analysis Date	10/18/23 20:40	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01913-03	MBL	PU-238	4.951E-8	9.320E-8	1.626E-7	U	
ARS1-B23-01913-03	MBL	PU-239/240	-2.829E-8	3.936E-8	9.978E-8	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01945
SDG	ARS1-23-02073
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/20/23 10:24	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01945-01	LCS	SR-90	2.003E-5	3.065E-6	1.963E-5	102.0	3.663E-7

Duplicate RER/DER/RPD			Analysis Date	10/20/23 10:24	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
SR-90	2.003E-5	3.065E-6	1.965E-5	3.009E-6	0.171	1.9	

Method Blank			Analysis Date	10/20/23 10:24	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01945-03	MBL	SR-90	2.808E-6	2.444E-6	3.905E-6	U	



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

## **QC Summary**



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

## QC Sample Results

**Analytical Batch:** ARS1-B23-01837

**Sample Type:** LCS

**Lab Sample ID:** ARS1-B23-01837-01

**Matrix:** Air Filter

**Method:** EPA 901.1M

**Analysis Date:** 10/09/23 10:35

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.060		uCi/filter	93.9	75 - 125
Co-60	20.928	21.348		uCi/filter	102.0	75 - 125
Cs-137	12.996	13.421		uCi/filter	103.3	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01837

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01837-02

**Matrix:** Air Filter

**Method:** EPA 901.1M

**Analysis Date:** 10/09/23 10:52

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.108		uCi/filter	94.1	75 - 125	0.2	25	0.028	3
Co-60	20.928	20.374		uCi/filter	97.4	75 - 125	4.7	25	1.082	3
Cs-137	12.996	13.240		uCi/filter	101.9	75 - 125	1.4	25	0.289	3



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## QC Sample Results

Analytical Batch: ARS1-B23-01837

Sample Type: MBL

Lab Sample ID: ARS1-B23-01837-03

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 10/08/23 11:59

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Ac-228	-0.001	0.007	0.006	0.003	U	uCi/filter
Am-241	-2.479E-4	0.001	0.002	0.001	U	uCi/filter
Bi-212	0.006	0.011	0.012	0.006	U	uCi/filter
Bi-214	0.001	0.004	0.004	0.002	U	uCi/filter
Co-60	-5.582E-4	0.002	0.002	9.050E-4	U	uCi/filter
Cs-137	4.181E-4	0.001	0.002	7.500E-4	U	uCi/filter
Eu-152	5.982E-4	0.001	0.002	8.550E-4	U	uCi/filter
Eu-154	-2.840E-5	9.994E-4	0.001	6.650E-4	U	uCi/filter
K-40	0.004	0.020	0.021	0.010	U	uCi/filter
Pa-234	7.669E-4	0.002	0.002	0.001	U	uCi/filter
Pb-210	-0.013	0.017	0.018	0.009	U	uCi/filter
Pb-212	1.286E-4	0.002	0.003	0.001	U	uCi/filter
Pb-214	-1.087E-4	0.003	0.003	0.002	U	uCi/filter
Ra-226	-0.092	0.035	0.032	0.016	U	uCi/filter
Ra-228	-0.001	0.007	0.006	0.003	U	uCi/filter
Th-234	1.417E-4	0.016	0.017	0.009	U	uCi/filter
Tl-208	-0.002	0.002	0.002	8.950E-4	U	uCi/filter
U-235	0.002	0.005	0.008	0.004	U	uCi/filter
U-238	1.417E-4	0.016	0.017	0.009	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02073

**Analytical Batch:** ARS1-B23-01837

**Analysis:** Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01837-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-04	ARS1-23-02073-001	FBC-091123	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-05	ARS1-23-02073-002	MSC01-091123	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-06	ARS1-23-02073-003	MSC01-091123-D	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-07	ARS1-23-02073-004	MSC02-091123	Air Filter	EPA 901.1M	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01908

**Lab Sample ID:** ARS1-B23-01908-01

**Method:** Eichrom ACW10

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/18/23 20:38

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Th-230	5.464E-6	5.999E-6		uCi/filter	109.8	75 - 125



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### QC Sample Results

**Analytical Batch:** ARS1-B23-01908

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01908-02

**Matrix:** Air Filter

**Method:** Eichrom ACW10

**Analysis Date:** 10/18/23 20:38

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Th-230	5.474E-6	5.887E-6		uCi/filter	107.5	75 - 125	1.9	25	0.208	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01908

**Sample Type:** MBL

**Lab Sample ID:** ARS1-B23-01908-03

**Matrix:** Air Filter

**Method:** Eichrom ACW10

**Analysis Date:** 10/18/23 20:38

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Th-228	-1.895E-8	8.123E-8	1.581E-7	7.048E-8	U	uCi/filter
Th-230	8.136E-8	7.723E-8	1.219E-7	5.249E-8	U	uCi/filter
Th-232	1.249E-8	2.453E-8	4.599E-8	1.453E-8	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02073

**Analytical Batch:** ARS1-B23-01908

**Analysis:** Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01908-01		Lab Control Sample	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-03		Method Blank	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-04	ARS1-23-02073-001	FBC-091123	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-05	ARS1-23-02073-002	MSC01-091123	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-06	ARS1-23-02073-003	MSC01-091123-D	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01908-07	ARS1-23-02073-004	MSC02-091123	Air Filter	Eichrom ACW10	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01913

**Lab Sample ID:** ARS1-B23-01913-01

**Method:** Eichrom ACW03

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/18/23 20:40

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.620E-6	7.631E-6		uCi/filter	100.1	75 - 125



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### QC Sample Results

**Analytical Batch:** ARS1-B23-01913

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01913-02

**Matrix:** Air Filter

**Method:** Eichrom ACW03

**Analysis Date:** 10/18/23 20:40

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.656E-6	7.433E-6		uCi/filter	97.1	75 - 125	2.6	25	0.291	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01913

**Lab Sample ID:** ARS1-B23-01913-03

**Method:** Eichrom ACW03

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 10/18/23 20:40

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Pu-238	4.951E-8	9.320E-8	1.626E-7	7.173E-8	U	uCi/filter
Pu-239/240	-2.829E-8	3.936E-8	9.978E-8	4.031E-8	U	uCi/filter



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## QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02073

**Analytical Batch:** ARS1-B23-01913

**Analysis:** Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01913-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-04	ARS1-23-02073-001	FBC-091123	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-05	ARS1-23-02073-002	MSC01-091123	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-06	ARS1-23-02073-003	MSC01-091123-D	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01913-07	ARS1-23-02073-004	MSC02-091123	Air Filter	Eichrom ACW03	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01945

**Lab Sample ID:** ARS1-B23-01945-01

**Method:** Eichrom SRW01

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/20/23 10:24

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	1.963E-5	2.003E-5		uCi/filter	102.0	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01945

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01945-02

**Matrix:** Air Filter

**Method:** Eichrom SRW01

**Analysis Date:** 10/20/23 10:24

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	2.059E-5	1.965E-5		uCi/filter	95.4	75 - 125	1.9	25	0.171	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01945

**Sample Type:** MBL

**Lab Sample ID:** ARS1-B23-01945-03

**Matrix:** Air Filter

**Method:** Eichrom SRW01

**Analysis Date:** 10/20/23 10:24

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
SR-90	2.808E-6	2.444E-6	3.905E-6	1.802E-6	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02073

**Analytical Batch:** ARS1-B23-01945

**Analysis:** Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01945-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-04	ARS1-23-02073-001	FBC-091123	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-05	ARS1-23-02073-002	MSC01-091123	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-06	ARS1-23-02073-003	MSC01-091123-D	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01945-07	ARS1-23-02073-004	MSC02-091123	Air Filter	Eichrom SRW01	N/A



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Sample Management Records**

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # [REDACTED] 091923RADC



<b>Project Name:</b> Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA		<b>Event: Parcel C Air Monitoring RAD</b>
<b>Project Number:</b> J310000600	POC [REDACTED]		
<b>WBS Code:</b> J310000600	Ship to: 2609 North River Road, Port Allen, LA 70767-3469		

**Comments:**

**Equipment:**

					Analytical Test	E901-1 - Gamma	RC0240 - Pu air	SR02RC - Sr90							
Event: Parcel C Air Monitoring RAD					Samp Init.	15	15	5							
	Sample ID	Matrix	Date	Time	Samp Init.	Location ID				Sample Type	Depth (ft bgs)		Cooler	Comments	
	FBC-091123	AQ	09/11/2023	0800		X	X	X			FB1	0.00	0.00	1	
	MSC01-091123	A	09/14/2023	1503		X	X	X			N1	0.00	0.00	1	TOTAL FLOW (L):
	MSC01-091123-D	A	09/14/2023	1504		X	X	X			FD1	0.00	0.00	1	TOTAL FLOW (L):
	MSC02-091123	A	09/14/2023	1503		X	X	X			N1	0.00	0.00	1	TOTAL FLOW (L):

**Turnaround Time: 28 days**

Renlinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
	9/19/23	1300	FEDEX	9/19/23	1300	Shipping Date: 9/19/2023 / FEDEX / 7732 7166 3725
				9-20-23	10:15	Received by Laboratory: (Signature, Date, Time) & condition

## SDG Report - Samples and Containers

SDG Specific Data								
SDG	ARS1-23-02073		TAT Days	28 Calendar Days		Project Type	Environmental	
Sample Count	4	Rpt Level	2b	Date Received	09/20/2023		COC Number	091923RADC
Client	GES-AIS, LLC		Discrepancy Resol	N/A		PO Number	J310000600	
Client Code	1138		Client Deadline	10/18/2023		Job Number		
Profile Number	PN-01440					Job Location	Hunters Point Shipyard, Parcel C Removal Site Evaluation	
Comment								

Samples and Containers Checked In Thus Far										
FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments	
001	FBC-091123	Air Filter	09/11/2023 07:59	09/11/2023 08:00	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448161	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/11/2023 07:59	AF Volume (CuM):		0.001			
002	MSC01-091123	Air Filter	09/14/2023 15:02	09/14/2023 15:03	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448162	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/14/2023 15:02	AF Volume (CuM):		0.001			
003	MSC01-091123-D	Air Filter	09/14/2023 15:03	09/14/2023 15:04	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448163	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/14/2023 15:03	AF Volume (CuM):		0.001			
004	MSC02-091123	Air Filter	09/14/2023 15:02	09/14/2023 15:03	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448164	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/14/2023 15:02	AF Volume (CuM):		0.001			

## SDG Report - Analysis Assignments

<b>SDG</b>	<b>ARS1-23-02073</b>	<b>Sample Count</b>	<b>4</b>
<b>Client</b>	<b>GES-AIS, LLC</b>	<b>Analysis Count</b>	<b>4-16</b>

Sample Count Totals Per Analysis			
Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	4
ASP-TH-AF	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	4
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	4
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	4

Analyses Assigned Per Fraction		
Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	ASP-TH-AF	X
001	GAM-A-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	ASP-TH-AF	X
002	GAM-A-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	ASP-TH-AF	X
003	GAM-A-AF	X
003	GPC-SR90-AF	X
004	ASP-PU239-AF	X
004	ASP-TH-AF	X
004	GAM-A-AF	X
004	GPC-SR90-AF	X

Client Name: GES-AIS, LLC

Profile Name: Parcel C Rad Sampling

Report Level: 2b

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
ASP-TH-AF	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Th-232 (7440-29-1)			1.4E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Ac-228 (14331-83-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Am-241 (14596-10-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-212 (14913-49-6)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-214 (14733-03-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-152 (14683-23-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-154 (15585-10-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	K-40 (13966-00-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-210 (14255-04-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-212 (15092-94-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-214 (15067-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-228 (15262-20-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Th-234 (15065-10-8)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Tl-208 (14913-50-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-235 (15117-96-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-238 (7440-61-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

GAM-A-AF	Pa-234 (15100-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	<b>Analyte</b>			<b>RDL</b>	<b>LCS LL/UL</b>	<b>MS LL/UL</b>	<b>RadY LL/UL</b>	<b>GravY LL/UL</b>	<b>RER</b>	<b>RPD</b>	<b>Surr LL/UL</b>
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Pu-239/240
ASP-PU239-AF	002	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Pu-239/240
ASP-PU239-AF	003	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Pu-239/240
ASP-PU239-AF	004	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Pu-239/240
ASP-TH-AF	001	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Th-232
ASP-TH-AF	002	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Th-232
ASP-TH-AF	003	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Th-232
ASP-TH-AF	004	uCi	filter	N/A	1
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Th-232
GAM-A-AF	001	uCi	filter	N/A	19
		<b>Group</b>		<b>Analyte</b>	
		Parcel C Rad Sampling			Ac-228

GAM-A-AF	001	Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137
		Parcel C Rad Sampling	Eu-152
		Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238
GAM-A-AF	002	uCi	filter
		Group	Analyte
		Parcel C Rad Sampling	Ac-228
		Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137
		Parcel C Rad Sampling	Eu-152
		Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226

GAM-A-AF	002	Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238
GAM-A-AF	003	uCi	filter
		Group	Analyte
		Parcel C Rad Sampling	Ac-228
		Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137
		Parcel C Rad Sampling	Eu-152
		Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238
GAM-A-AF	004	uCi	filter
		Group	Analyte
		Parcel C Rad Sampling	Ac-228
		Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137

GAM-A-AF	004	Parcel C Rad Sampling		Eu-152	
		Parcel C Rad Sampling		Eu-154	
		Parcel C Rad Sampling		K-40	
		Parcel C Rad Sampling		Pa-234	
		Parcel C Rad Sampling		Pb-210	
		Parcel C Rad Sampling		Pb-212	
		Parcel C Rad Sampling		Pb-214	
		Parcel C Rad Sampling		Ra-226	
		Parcel C Rad Sampling		Ra-228	
		Parcel C Rad Sampling		Th-234	
		Parcel C Rad Sampling		Tl-208	
		Parcel C Rad Sampling		U-235	
		Parcel C Rad Sampling		U-238	
GPC-SR90-AF	001	uCi	filter	N/A	1
		Group		Analyte	
GPC-SR90-AF	002	Parcel C Rad Sampling		Sr-90	
		uCi	filter	N/A	1
GPC-SR90-AF	003	Group		Analyte	
		Parcel C Rad Sampling		Sr-90	
GPC-SR90-AF	004	uCi	filter	N/A	1
		Group		Analyte	
		Parcel C Rad Sampling		Sr-90	

# PALA Sample Receipt Inspection Form

Client Name: GES

SDG: ARS1 - 23 - 2073

Sample Custodian	Survey Start Date:	<u>9-20-23</u>	Survey Start Time:	<u>10:15</u>
Thermometer ID:	Calibration Due Date:	<u>1-12-24</u>	pH Paper Lot#	<u>NA</u>
Exposure Rate Meter + Probe Unit ID:	Calibration Due Date:	<u>3-21-24</u>	Background:	<u>5</u> $\mu\text{R}/\text{hr}$
Count Rate Meter + Probe Unit ID:	Calibration Due Date:	<u>3-21-24</u>	Background:	<u>20</u> cpm
Delivery Type (circle one):	Direct	Lock Box	Commercial Carrier:	<u>FedEx</u>
				Total # of ESCs: <u>1</u>

\*True temperature is recorded which includes any applicable correction factors.

External Shipping Container Tracking:	Exposure Rate ( $\mu\text{R}/\text{hr}$ ) (limit <500 $\mu\text{R}/\text{hr}$ )	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* ( $^{\circ}\text{C}$ )	TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)			
A: <u>773271663725</u>	<u>5</u>	<u>20</u>	<u>20</u>	<u>-</u>	<input type="checkbox"/> AQ	<input type="checkbox"/> WD	<input type="checkbox"/> WG	<input type="checkbox"/> WO
B:					<input type="checkbox"/> WS	<input type="checkbox"/> WW	<input type="checkbox"/> SI	<input type="checkbox"/> UR
C:					<input type="checkbox"/> SO	<input type="checkbox"/> OL	<input type="checkbox"/> BI	<input type="checkbox"/> VG
D:					<input type="checkbox"/> WP	<input type="checkbox"/> SM	<input checked="" type="checkbox"/> AF	
E:								
F:								

Visual Inspection: <u>External Shipping Container</u>	(Circle response)		COC/Sample Inspection	(Circle response)			
Good Condition with no Leaks or Tears	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Sample Containers in good condition	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Marked Radioactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No	No spills or leaks	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
UN2910	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Marked Radioactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Security Seals	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Durable labels w/indelible ink	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
If yes, intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	COC relinquished/received correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
<u>Internal Shipping Container</u>			Adequate volume/filled correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
COC's Present	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Hold Time sufficient for analysis	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Well packaged container with no signs of leakage	<input checked="" type="radio"/> Yes	<input type="radio"/> No	For VOC/Radon, Head space?	<input type="radio"/> Yes	<input type="radio"/> No		
			If yes, <6mm?	<input type="radio"/> Yes	<input type="radio"/> No		
			# of containers received matches # on COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Comments:			Samples received on ice?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
			Type (circle one):	<input type="radio"/> Bagged Ice	<input type="radio"/> Loose Ice	<input type="radio"/> Blue Ice	<input checked="" type="radio"/> N/A





Procedures: GES-003 / EPA 900.0M

Start Date 9/11/23  
Stop Date 9/14/23

File ID Number: 091923RADC

## Field Entry

Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Initial Flow Rate (LPM)	Final Flow Rate (LPM)	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Run Time (Minutes)	Average Flow Rate (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/h)	Flow Rate (Cu.M/min)	Flow Rate (L)	
	FBC-091123	9/11/2023	800	9/11/2023	800														
1	MSC01	MSC01-091123	09/11/23	4:00	09/14/23	15:03	60	60	257	3.46	83.05	4983.0	60	2.11888	2.11888	2.11888	3.6	0.06	298,980
2	MSC01	MSC01-091123-D	09/11/23	4:00	09/14/23	15:04	60	60	257	3.46	83.07	4984.0	60	2.11888	2.11888	2.11888	3.6	0.06	299,040
3	MSC02	MSC02-091123	09/11/23	4:15	09/14/23	15:03	60	60	257	3.45	82.80	4968.0	60	2.11888	2.11888	2.11888	3.6	0.06	298,080

## FORMULAS

Number of Days = (Date Out + Time Out) minus (Date In + Time In)

Number of Minutes = # of Days X 24hr X 60min

Flow Rate (m³/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3 :

Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2

Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF

Flow Rate (LPM) = Cu.M X 1000

Total Flow (L) = LPM X Total Minutes

ORIGIN ID: ICCA

200 FISHER STREET

SAN FRANCISCO, CA 94124  
UNITED STATES US

TO [REDACTED]

SHIP DATE: 05SEP23  
ACTWGT: 1.00 LB  
CAD: 254128867/INET4640

BILL SENDER

ARS ALEUT ANALYTICAL, LLC  
2609 NORTH RIVER ROAD

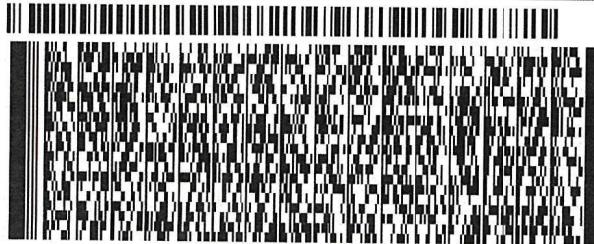
PORT ALLEN LA 70767

(225) 381-2991

INV:  
PO:

REF: J31000.600 02.04.05

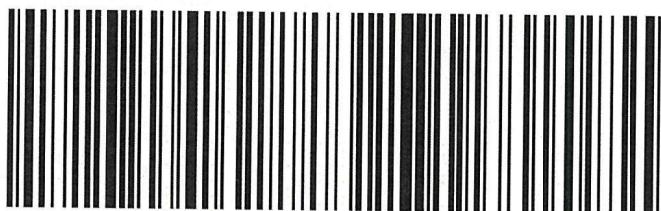
DEPT:



58313/CEDD9AE3

WED - 06 SEP 5:00P  
STANDARD OVERNIGHTTRK#  
0201 7732 7166 3725

XN OPLA

70767  
LA-US MSY**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
  2. Fold the printed page along the horizontal line.
  3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.
- Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
- Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



2609 North River Road  
Port Allen, Louisiana 70767  
(225) 228-1394

## ARS Aleut Analytical, LLC

### Laboratory Analytical Report

ARS1-23-02151

GES-AIS, LLC  
[REDACTED]

1501 West Fountainhead Parkway  
Suite 550  
Tempe, AZ 94520  
[REDACTED]  
[REDACTED]

COC Number: [REDACTED] 092623RADC

PO Number: Parcel C Air Monitoring RAD

Job Number: J310000600

Job Location: Hunters Point Shipyard, Parcel C Removal Site Evaluation

Questions regarding this analytical report should be addressed to ARS project manager, [REDACTED], who can be reached by email at [projectmanagers@aaa.aleutfederal.com](mailto:projectmanagers@aaa.aleutfederal.com).

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. I authorize release and issuance of this report on the date signed below.

[REDACTED]

Laboratory Management, ARS Aleut Analytical

Signature

Date

Title

*This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.*





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## Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312024-02
New Jersey	LA009
New York	66780 (NPW) / 66781 (SHW)
Texas	T104704447-22-18
Utah	LA011312023-14
Washington	C1010

For additional information related to the specific matrices, methods, and analytes recognized by each accrediting body, contact us at [QA@aaa.aleutfederal.com](mailto:QA@aaa.aleutfederal.com) for additional information.



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

# **Case Narrative**



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

**PROJECT SAMPLE IDENTIFICATION  
CROSS-REFERENCE  
TO ARS SAMPLE LABORATORY IDs**

Client Sample ID	ARS Aleut Analytical Sample ID
FBC-091823	ARS1-23-02151-001
MSC01-091823	ARS1-23-02151-002
MSC02-091823	ARS1-23-02151-003

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	09/18/23 08:00	09/27/23	ASP-PU239-AF	As Received	10/20/23 07:30	10/24/23 23:20
001	09/18/23 08:00	09/27/23	ASP-TH-AF	As Received	10/23/23 07:45	10/25/23 02:54
001	09/18/23 08:00	09/27/23	GAM-A-AF	As Received	NA	10/13/23 20:38
001	09/18/23 08:00	09/27/23	GPC-SR90-AF	As Received	10/23/23 13:50	10/25/23 10:16
002	09/21/23 14:54	09/27/23	ASP-PU239-AF	As Received	10/20/23 07:30	10/24/23 23:20
002	09/21/23 14:54	09/27/23	ASP-TH-AF	As Received	10/23/23 07:45	10/25/23 02:54
002	09/21/23 14:54	09/27/23	GAM-A-AF	As Received	NA	10/13/23 21:18
002	09/21/23 14:54	09/27/23	GPC-SR90-AF	As Received	10/23/23 13:50	10/25/23 10:16
003	09/21/23 14:44	09/27/23	ASP-PU239-AF	As Received	10/20/23 07:30	10/24/23 23:20
003	09/21/23 14:44	09/27/23	ASP-TH-AF	As Received	10/23/23 07:45	10/25/23 02:54
003	09/21/23 14:44	09/27/23	GAM-A-AF	As Received	NA	10/16/23 14:13
003	09/21/23 14:44	09/27/23	GPC-SR90-AF	As Received	10/23/23 13:50	10/25/23 10:16

**SAMPLE RECEIPT/PREP**

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.



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## ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026**, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)".

Th-232 analysis was performed using **PALA-RAD-031**, "Thorium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom ACW-08 & Eichrom ACW-10)".

Ac-228, Am-241, Bi-212, Bi-214, Co-60, Cs-137, Eu-152, Eu-154, K-40, Pa-234, Pb-210, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, Tl-208, U-235, and U-238 analyses were performed using **PALA-RAD-007**, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)".

Sr-90 analysis was performed using **PALA-RAD-032**, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)".

## ANALYTICAL RESULTS

Fraction 001 in batch ARS1-B23-01959 has elevated MDA for Pu-239/240 with ACT of -1.734E-8 uCi/filter, MDA of 1.223E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01974 has elevated MDA for Th-232 with ACT of -1.672E-8 uCi/filter, MDA of 6.001E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of -1.166E-5 uCi/filter, MDA of 1.552E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-01959 has elevated MDA for Pu-239/240 with ACT of -6.241E-8 uCi/filter, MDA of 1.175E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of -1.445E-6 uCi/filter, MDA of 1.006E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01959 has elevated MDA for Pu-239/240 with ACT of 0.000 uCi/filter, MDA of 6.597E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01837 has elevated MDA for Ra-226 with ACT of 2.371E-7 uCi/filter, MDA of 9.413E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-01959: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01974: ROI's adjusted to better fit the peaks of interest.

# Notes (Case Narrative)

## Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit
SDG	Sample Deliverable Group

## Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory.
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
#	Method/Matrix/Analyte not accredited for this certification

## Radiochemistry Comments:

- 1.0) All MDA values are calculated on a sample specific basis.
- 2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
- 3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
- 4.0) Ra-226 after a 21-day ingrowth period is determined via secular equilibrium with its daughter, Bismuth 214 (Gamma Spectroscopy only).
- 5.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
- 6.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
- 7.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (HPGe).
- 8.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
- 9.0) Gamma spectroscopy results are calculated values based on the ORTEC® GammaVision ENV32 Analysis Engine.
- 10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**: Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Am-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCW02)
- 11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCW02, Eichrom TCS01)
- 12.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

## General Comments:

- 1.0) Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "M" or "Mod" to the procedure number (i.e. 901.1M, 901.1 Mod).
- 2.0) All NIOSH method results are reported without blank corrections applied.
- 3.0) Basis: "As Received" = analyzed as received from client; "Dry" = dried prior to being analyzed; "Dry Weight Corrected" = analyzed as received; result corrected for percent moisture.



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Analytical Results**



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**ARS Sample Delivery Group:** ARS1-23-02151**Client Sample ID:** FBC-091823**Sample Collection Date:** 09/18/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02151-001**Date Received:** 09/27/23**Report Date:** 10/26/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01959-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-1.734E-8	5.379E-8	1.223E-7	4.942E-8	4.8E-08	U	uCi/filter	10/24/23 23:20	[REDACTED]	45.4%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01974-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	-1.672E-8	1.903E-8	6.001E-8	2.245E-8	1.4E-08	U	uCi/filter	10/25/23 2:54	[REDACTED]	71.5%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-08

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	2.701E-6	2.102E-6	2.051E-6	1.026E-6	NP		uCi/filter	10/13/23 20:38	[REDACTED]	N/A
Co-60	-5.108E-7	8.970E-7	1.490E-6	7.450E-7	0.00024	U	uCi/filter	10/13/23 20:38	[REDACTED]	N/A
Cs-137	3.734E-7	7.562E-7	8.785E-7	4.393E-7	0.00048	U	uCi/filter	10/13/23 20:38	[REDACTED]	N/A
Ra-226	-1.166E-5	1.536E-5	1.552E-5	7.760E-6	4.4E-06	U	uCi/filter	10/13/23 20:38	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01987-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-7.001E-9	1.972E-6	3.596E-6	1.656E-6	2.4E-05	U	uCi/filter	10/25/23 10:16	[REDACTED]	104%



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**ARS Sample Delivery Group:** ARS1-23-02151**Client Sample ID:** MSC01-091823**Sample Collection Date:** 09/21/23 14:54**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02151-002**Date Received:** 09/27/23**Report Date:** 10/26/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01959-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-6.241E-8	4.639E-8	1.175E-7	5.030E-8	4.8E-08	U	uCi/filter	10/24/23 23:20	[REDACTED]	70.6%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01974-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	1.363E-7	5.909E-8	4.181E-8	1.321E-8	1.4E-08		uCi/filter	10/25/23 2:54	[REDACTED]	79.8%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-09

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	5.492E-6	1.422E-6	1.518E-6	7.590E-7	NP		uCi/filter	10/13/23 21:18	[REDACTED]	N/A
Co-60	2.901E-8	8.745E-7	9.027E-7	4.514E-7	0.00024	U	uCi/filter	10/13/23 21:18	[REDACTED]	N/A
Cs-137	-4.207E-7	7.714E-7	8.295E-7	4.148E-7	0.00048	U	uCi/filter	10/13/23 21:18	[REDACTED]	N/A
K-40	1.383E-5	8.550E-6	7.902E-6	3.951E-6	NP		uCi/filter	10/13/23 21:18	[REDACTED]	N/A
Pb-214	5.168E-6	1.010E-6	1.205E-6	6.025E-7	NP		uCi/filter	10/13/23 21:18	[REDACTED]	N/A
Ra-226	-1.445E-6	7.958E-6	1.006E-5	5.030E-6	4.4E-06	U	uCi/filter	10/13/23 21:18	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01987-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	-6.271E-7	3.016E-6	5.421E-6	2.566E-6	2.4E-05	U	uCi/filter	10/25/23 10:16	[REDACTED]	102%



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**ARS Sample Delivery Group:** ARS1-23-02151**Client Sample ID:** MSC02-091823**Sample Collection Date:** 09/21/23 14:44**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02151-003**Date Received:** 09/27/23**Report Date:** 10/26/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01959-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	0.000	2.941E-8	6.597E-8	2.468E-8	4.8E-08	U	uCi/filter	10/24/23 23:20	[REDACTED]	63.7%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01974-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	1.152E-7	5.219E-8	3.857E-8	1.219E-8	1.4E-08		uCi/filter	10/25/23 2:54	[REDACTED]	75.5%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01837-10

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Bi-214	4.549E-6	1.446E-6	1.487E-6	7.435E-7	NP		uCi/filter	10/16/23 14:13	[REDACTED]	N/A
Co-60	-8.115E-8	8.843E-7	9.109E-7	4.555E-7	0.00024	U	uCi/filter	10/16/23 14:13	[REDACTED]	N/A
Cs-137	-9.582E-8	6.866E-7	7.470E-7	3.735E-7	0.00048	U	uCi/filter	10/16/23 14:13	[REDACTED]	N/A
K-40	1.984E-5	8.018E-6	7.515E-6	3.758E-6	NP		uCi/filter	10/16/23 14:13	[REDACTED]	N/A
Pb-214	4.712E-6	1.013E-6	1.082E-6	5.410E-7	NP		uCi/filter	10/16/23 14:13	[REDACTED]	N/A
Ra-226	2.371E-7	7.415E-6	9.413E-6	4.707E-6	4.4E-06	U	uCi/filter	10/16/23 14:13	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01987-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	7.721E-7	2.218E-6	3.887E-6	1.797E-6	2.4E-05	U	uCi/filter	10/25/23 10:16	[REDACTED]	102%



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

# **GES-AIS, LLC**

## **Batch QC**



## QC Results per Analytical Batch

Analytical Batch	<b>ARS1-B23-01837</b>
SDG	<b>ARS1-23-02151</b>
Analysis	Gamma Spec (Short) in (Air Filters, Smears [AF])
Method	<b>EPA 901.1M</b>
Analysis Code	<b>GAM-A-AF</b>
Report Units	<b>uCi/filter</b>

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/09/23 10:35	Analysis Technician	█ █ █ █ █	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01837-01	LCS	AM-241	31.060	2.364	33.065	93.9	0.120
ARS1-B23-01837-01	LCS	CO-60	21.348	1.268	20.928	102.0	0.374
ARS1-B23-01837-01	LCS	CS-137	13.421	0.875	12.996	103.3	0.065

Duplicate RER/DER/RPD			Analysis Date	10/09/23 10:52	Analysis Technician	█ █ █ █ █	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
AM-241	31.060	2.364	31.108	2.368	0.028	0.2	
CO-60	21.348	1.268	20.374	1.225	1.082	4.7	
CS-137	13.421	0.875	13.240	0.864	0.289	1.4	

Method Blank			Analysis Date	10/08/23 11:59	Analysis Technician	█ █ █ █ █	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01837-03	MBL	AC-228	-0.001	0.007	0.006	U	
ARS1-B23-01837-03	MBL	AM-241	-2.479E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	BI-212	0.006	0.011	0.012	U	
ARS1-B23-01837-03	MBL	BI-214	0.001	0.004	0.004	U	
ARS1-B23-01837-03	MBL	CO-60	-5.582E-4	0.002	0.002	U	
ARS1-B23-01837-03	MBL	CS-137	4.181E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	EU-152	5.982E-4	0.001	0.002	U	
ARS1-B23-01837-03	MBL	EU-154	-2.840E-5	9.994E-4	0.001	U	
ARS1-B23-01837-03	MBL	K-40	0.004	0.020	0.021	U	
ARS1-B23-01837-03	MBL	PA-234	7.669E-4	0.002	0.002	U	
ARS1-B23-01837-03	MBL	PB-210	-0.013	0.017	0.018	U	
ARS1-B23-01837-03	MBL	PB-212	1.286E-4	0.002	0.003	U	
ARS1-B23-01837-03	MBL	PB-214	-1.087E-4	0.003	0.003	U	
ARS1-B23-01837-03	MBL	RA-226	-0.092	0.035	0.032	U	
ARS1-B23-01837-03	MBL	RA-228	-0.001	0.007	0.006	U	
ARS1-B23-01837-03	MBL	TH-234	1.417E-4	0.016	0.017	U	
ARS1-B23-01837-03	MBL	TL-208	-0.002	0.002	0.002	U	
ARS1-B23-01837-03	MBL	U-235	0.002	0.005	0.008	U	
ARS1-B23-01837-03	MBL	U-238	1.417E-4	0.016	0.017	U	



## QC Results per Analytical Batch

Analytical Batch	<b>ARS1-B23-01959</b>
SDG	<b>ARS1-23-02151</b>
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	<b>Eichrom ACW03</b>
Analysis Code	<b>ASP-PU239-AF</b>
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/24/23 23:20	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01959-01	LCS	PU-239/240	7.528E-6	9.437E-7	7.656E-6	98.3	3.058E-8

Duplicate RER/DER/RPD			Analysis Date	10/24/23 23:20	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
PU-239/240	7.528E-6	9.437E-7	7.762E-6	9.684E-7	0.340	3.1	

Method Blank			Analysis Date	10/24/23 23:20	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01959-03	MBL	PU-238	3.442E-8	9.247E-8	1.677E-7	U	
ARS1-B23-01959-03	MBL	PU-239/240	8.604E-9	4.463E-8	9.265E-8	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01974
SDG	ARS1-23-02151
Analysis	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW10
Analysis Code	ASP-TH-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/25/23 02:54	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01974-01	LCS	TH-230	6.010E-6	7.501E-7	5.400E-6	111.3	2.624E-8

Duplicate RER/DER/RPD			Analysis Date	10/25/23 02:54	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
TH-230	6.010E-6	7.501E-7	5.614E-6	7.028E-7	0.755	6.8	

Method Blank			Analysis Date	10/25/23 02:54	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01974-03	MBL	TH-228	-3.416E-8	7.902E-8	1.556E-7	U	
ARS1-B23-01974-03	MBL	TH-230	1.528E-7	1.302E-7	2.089E-7	U	
ARS1-B23-01974-03	MBL	TH-232	-1.695E-8	4.831E-8	1.025E-7	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01987
SDG	ARS1-23-02151
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/25/23 10:16	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01987-01	LCS	SR-90	2.323E-5	3.564E-6	1.970E-5	117.9	4.414E-7

Duplicate RER/DER/RPD			Analysis Date	10/25/23 10:16	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
SR-90	2.323E-5	3.564E-6	1.929E-5	2.956E-6	1.672	18.6	

Method Blank			Analysis Date	10/25/23 10:16	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01987-03	MBL	SR-90	1.271E-6	2.604E-6	4.502E-6	U	



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

## **QC Summary**



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01837

**Lab Sample ID:** ARS1-B23-01837-01

**Method:** EPA 901.1M

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/09/23 10:35

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.060		uCi/filter	93.9	75 - 125
Co-60	20.928	21.348		uCi/filter	102.0	75 - 125
Cs-137	12.996	13.421		uCi/filter	103.3	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01837

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01837-02

**Matrix:** Air Filter

**Method:** EPA 901.1M

**Analysis Date:** 10/09/23 10:52

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.108		uCi/filter	94.1	75 - 125	0.2	25	0.028	3
Co-60	20.928	20.374		uCi/filter	97.4	75 - 125	4.7	25	1.082	3
Cs-137	12.996	13.240		uCi/filter	101.9	75 - 125	1.4	25	0.289	3



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## QC Sample Results

Analytical Batch: ARS1-B23-01837

Sample Type: MBL

Lab Sample ID: ARS1-B23-01837-03

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 10/08/23 11:59

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Ac-228	-0.001	0.007	0.006	0.003	U	uCi/filter
Am-241	-2.479E-4	0.001	0.002	0.001	U	uCi/filter
Bi-212	0.006	0.011	0.012	0.006	U	uCi/filter
Bi-214	0.001	0.004	0.004	0.002	U	uCi/filter
Co-60	-5.582E-4	0.002	0.002	9.050E-4	U	uCi/filter
Cs-137	4.181E-4	0.001	0.002	7.500E-4	U	uCi/filter
Eu-152	5.982E-4	0.001	0.002	8.550E-4	U	uCi/filter
Eu-154	-2.840E-5	9.994E-4	0.001	6.650E-4	U	uCi/filter
K-40	0.004	0.020	0.021	0.010	U	uCi/filter
Pa-234	7.669E-4	0.002	0.002	0.001	U	uCi/filter
Pb-210	-0.013	0.017	0.018	0.009	U	uCi/filter
Pb-212	1.286E-4	0.002	0.003	0.001	U	uCi/filter
Pb-214	-1.087E-4	0.003	0.003	0.002	U	uCi/filter
Ra-226	-0.092	0.035	0.032	0.016	U	uCi/filter
Ra-228	-0.001	0.007	0.006	0.003	U	uCi/filter
Th-234	1.417E-4	0.016	0.017	0.009	U	uCi/filter
Tl-208	-0.002	0.002	0.002	8.950E-4	U	uCi/filter
U-235	0.002	0.005	0.008	0.004	U	uCi/filter
U-238	1.417E-4	0.016	0.017	0.009	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02151

**Analytical Batch:** ARS1-B23-01837

**Analysis:** Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01837-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-08	ARS1-23-02151-001	FBC-091823	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-09	ARS1-23-02151-002	MSC01-091823	Air Filter	EPA 901.1M	N/A
ARS1-B23-01837-10	ARS1-23-02151-003	MSC02-091823	Air Filter	EPA 901.1M	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01959

**Lab Sample ID:** ARS1-B23-01959-01

**Method:** Eichrom ACW03

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/24/23 23:20

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.656E-6	7.528E-6		uCi/filter	98.3	75 - 125



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### QC Sample Results

**Analytical Batch:** ARS1-B23-01959

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01959-02

**Matrix:** Air Filter

**Method:** Eichrom ACW03

**Analysis Date:** 10/24/23 23:20

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.733E-6	7.762E-6		uCi/filter	100.4	75 - 125	3.1	25	0.340	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01959

**Lab Sample ID:** ARS1-B23-01959-03

**Method:** Eichrom ACW03

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 10/24/23 23:20

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Pu-238	3.442E-8	9.247E-8	1.677E-7	7.218E-8	U	uCi/filter
Pu-239/240	8.604E-9	4.463E-8	9.265E-8	3.467E-8	U	uCi/filter



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## QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02151

**Analytical Batch:** ARS1-B23-01959

**Analysis:** Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01959-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01959-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01959-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01959-04	ARS1-23-02151-001	FBC-091823	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01959-05	ARS1-23-02151-002	MSC01-091823	Air Filter	Eichrom ACW03	N/A
ARS1-B23-01959-06	ARS1-23-02151-003	MSC02-091823	Air Filter	Eichrom ACW03	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01974

**Lab Sample ID:** ARS1-B23-01974-01

**Method:** Eichrom ACW10

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/25/23 2:54

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Th-230	5.400E-6	6.010E-6		uCi/filter	111.3	75 - 125



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### QC Sample Results

**Analytical Batch:** ARS1-B23-01974

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01974-02

**Matrix:** Air Filter

**Method:** Eichrom ACW10

**Analysis Date:** 10/25/23 2:54

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Th-230	5.384E-6	5.614E-6		uCi/filter	104.3	75 - 125	6.8	25	0.755	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01974

**Sample Type:** MBL

**Lab Sample ID:** ARS1-B23-01974-03

**Matrix:** Air Filter

**Method:** Eichrom ACW10

**Analysis Date:** 10/25/23 2:54

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Th-228	-3.416E-8	7.902E-8	1.556E-7	7.009E-8	U	uCi/filter
Th-230	1.528E-7	1.302E-7	2.089E-7	9.677E-8	U	uCi/filter
Th-232	-1.695E-8	4.831E-8	1.025E-7	4.359E-8	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02151

**Analytical Batch:** ARS1-B23-01974

**Analysis:** Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01974-01		Lab Control Sample	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01974-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01974-03		Method Blank	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01974-04	ARS1-23-02151-001	FBC-091823	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01974-05	ARS1-23-02151-002	MSC01-091823	Air Filter	Eichrom ACW10	N/A
ARS1-B23-01974-06	ARS1-23-02151-003	MSC02-091823	Air Filter	Eichrom ACW10	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01987

**Lab Sample ID:** ARS1-B23-01987-01

**Method:** Eichrom SRW01

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/25/23 10:16

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	1.970E-5	2.323E-5		uCi/filter	117.9	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01987

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01987-02

**Matrix:** Air Filter

**Method:** Eichrom SRW01

**Analysis Date:** 10/25/23 10:16

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	1.994E-5	1.929E-5		uCi/filter	96.7	75 - 125	18.6	25	1.672	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01987

**Lab Sample ID:** ARS1-B23-01987-03

**Method:** Eichrom SRW01

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 10/25/23 10:16

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
SR-90	1.271E-6	2.604E-6	4.502E-6	2.074E-6	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02151

**Analytical Batch:** ARS1-B23-01987

**Analysis:** Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01987-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01987-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01987-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01987-04	ARS1-23-02151-001	FBC-091823	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01987-05	ARS1-23-02151-002	MSC01-091823	Air Filter	Eichrom SRW01	N/A
ARS1-B23-01987-06	ARS1-23-02151-003	MSC02-091823	Air Filter	Eichrom SRW01	N/A



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Sample Management Records**

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # [REDACTED] 092623RADC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: Parcel C Air Monitoring RAD
Project Number: J310000600	POC [REDACTED]	
WBS Code: J310000600	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:						<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>5</td> <td>1x 1-L Plastic, HNO3, pH &lt; 2</td> </tr> <tr> <td>15</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> </table>						Code	Matrix	A	Air	AQ	Air Quality Control Matrix	Code	Container/Preservative	5	1x 1-L Plastic, HNO3, pH < 2	15	1x 250-mL Plastic, 4 Degrees C
Code	Matrix																						
A	Air																						
AQ	Air Quality Control Matrix																						
Code	Container/Preservative																						
5	1x 1-L Plastic, HNO3, pH < 2																						
15	1x 250-mL Plastic, 4 Degrees C																						
Equipment:																							
Event: Parcel C Air Monitoring RAD																							
	Sample ID	Matrix	Date	Time	Samp Init.							Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments							
1	FBC-091823	AQ	09/18/2023	0800	[REDACTED]	X	X	X	[REDACTED]	[REDACTED]	[REDACTED]	FIELDQC	FB1	0.00	0.00	1							
2	MSC01-091823	A	09/21/2023	1454	[REDACTED]	X	X	X	[REDACTED]	[REDACTED]	[REDACTED]	MSC01	N1	0.00	0.00	1							
3	MSC02-091823	A	09/21/2023	1444	[REDACTED]	X	X	X	[REDACTED]	[REDACTED]	[REDACTED]	MSC02	N1	0.00	0.00	1							
TOTAL FLOW (L):																							
Turnaround Time: 28 days																							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	9/26/23	1300	FEDEX	9/26/23	1300	Shipping Date: 9/26/2023 / FEDEX / 7733 0222 8725
			[REDACTED]	9-27-23	9:38	Received by Laboratory: (Signature, Date, Time) & condition



Procedures: GES-003 / EPA 900.0M

Start Date  
Stop Date  
9/18/23  
9/21/23

File ID Number: 092623RADC

## Field Entry

Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Initial	Final	Julian	Total	Total	Run	Average	Initial Flow	Final Flow	Average	Average	Flow Rate	Flow Rate
						Flow Rate (LPM)	Flow Rate (LPM)											
1 MSC01	FBC-091823	09/18/2023	800	09/18/2023	800	09/18/23 14:54	09/21/23 00:00	264	3.46	83.07	4984.0	60	2.11888	2.11888	2.11888	3.6	0.06	299.040
2 MSC02	MSC02-091823	09/18/23	4:00	09/21/23	14:44	09/18/23 14:44	09/21/23 00:00	264	3.45	82.73	4964.0	60	2.11888	2.11888	2.11888	3.6	0.06	297.840

## FORMULAS:

Number of Days = (Date Out + Time Out) minus (Date In+Time In)

Number of Minutes = # of Days X 24hr X 60min

Flow Rate (m3/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3

Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2

Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF

Flow Rate (LPM) = Cu.M X 1000

Total Flow (L) = LPM X Total Minutes

## SDG Report - Samples and Containers

SDG Specific Data								
SDG	ARS1-23-02151		TAT Days	28 Calendar Days		Project Type	Environmental	
Sample Count	3	Rpt Level	2b	Date Received	09/27/2023		COC Number	092623RADC
Client	GES-AIS, LLC		Discrepancy Resol	N/A		PO Number	Parcel C Air Monitoring RAD	
Client Code	1138		Client Deadline	10/25/2023		Job Number	J310000600	
Profile Number	PN-01440					Job Location	Hunters Point Shipyard, Parcel C Removal Site Evaluation	
Comment								

Samples and Containers Checked In Thus Far										
FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments	
001	FBC-091823	Air Filter	09/18/2023 07:59	09/18/2023 08:00	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448639	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/18/2023 07:59	AF Volume (CuM):		0.001			
002	MSC01-091823	Air Filter	09/21/2023 14:53	09/21/2023 14:54	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448640	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/21/2023 14:53	AF Volume (CuM):		0.001			
003	MSC02-091823	Air Filter	09/21/2023 14:43	09/21/2023 14:44	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448641	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/21/2023 14:43	AF Volume (CuM):		0.001			

## SDG Report - Analysis Assignments

<b>SDG</b>	<b>ARS1-23-02151</b>	<b>Sample Count</b>	<b>3</b>
<b>Client</b>	<b>GES-AIS, LLC</b>	<b>Analysis Count</b>	<b>4-12</b>

Sample Count Totals Per Analysis			
Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	3
ASP-TH-AF	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	3
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	3
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	3

Analyses Assigned Per Fraction		
Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	ASP-TH-AF	X
001	GAM-A-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	ASP-TH-AF	X
002	GAM-A-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	ASP-TH-AF	X
003	GAM-A-AF	X
003	GPC-SR90-AF	X

Client Name: GES-AIS, LLC

Profile Name: Parcel C Rad Sampling

Report Level: 2b

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
ASP-TH-AF	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Th-232 (7440-29-1)			1.4E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Ac-228 (14331-83-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Am-241 (14596-10-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-212 (14913-49-6)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-214 (14733-03-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-152 (14683-23-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-154 (15585-10-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	K-40 (13966-00-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-210 (14255-04-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-212 (15092-94-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-214 (15067-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-228 (15262-20-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Th-234 (15065-10-8)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Tl-208 (14913-50-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-235 (15117-96-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-238 (7440-61-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

DQO Report for SDG

ARS1-23-02151

GAM-A-AF	Pa-234 (15100-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	<b>Analyte</b>			<b>RDL</b>	<b>LCS LL/UL</b>	<b>MS LL/UL</b>	<b>RadY LL/UL</b>	<b>GravY LL/UL</b>	<b>RER</b>	<b>RPD</b>	<b>Surr LL/UL</b>
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity	Analyte Count		
ASP-PU239-AF	001	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Pu-239/240					
ASP-PU239-AF	002	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Pu-239/240					
ASP-PU239-AF	003	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Pu-239/240					
ASP-TH-AF	001	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Th-232					
ASP-TH-AF	002	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Th-232					
ASP-TH-AF	003	uCi	filter	N/A	1		
		<b>Group</b>		<b>Analyte</b>			
	Parcel C Rad Sampling	Th-232					
GAM-A-AF	001	uCi	filter	N/A	19		
		<b>Group</b>		<b>Analyte</b>			
		Parcel C Rad Sampling	Ac-228				
		Parcel C Rad Sampling	Am-241				
		Parcel C Rad Sampling	Bi-212				
		Parcel C Rad Sampling	Bi-214				
		Parcel C Rad Sampling	Co-60				
		Parcel C Rad Sampling	Cs-137				
		Parcel C Rad Sampling	Eu-152				

GAM-A-AF	001	Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238
GAM-A-AF	002	uCi	filter
		Group	Analyte
		Parcel C Rad Sampling	Ac-228
		Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137
		Parcel C Rad Sampling	Eu-152
		Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238

DQO Report for SDG

ARS1-23-02151

GAM-A-AF	003	uCi	filter	N/A	19
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Ac-228	
Parcel C Rad Sampling				Am-241	
Parcel C Rad Sampling				Bi-212	
Parcel C Rad Sampling				Bi-214	
Parcel C Rad Sampling				Co-60	
Parcel C Rad Sampling				Cs-137	
Parcel C Rad Sampling				Eu-152	
Parcel C Rad Sampling				Eu-154	
Parcel C Rad Sampling				K-40	
Parcel C Rad Sampling				Pa-234	
Parcel C Rad Sampling				Pb-210	
Parcel C Rad Sampling				Pb-212	
Parcel C Rad Sampling				Pb-214	
Parcel C Rad Sampling				Ra-226	
Parcel C Rad Sampling				Ra-228	
Parcel C Rad Sampling				Th-234	
Parcel C Rad Sampling				Tl-208	
Parcel C Rad Sampling				U-235	
Parcel C Rad Sampling				U-238	
GPC-SR90-AF	001	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	

# PALA Sample Receipt Inspection Form

Client Name: GES  
 SDG: ARS1-23-2151

Sample Custodian	Survey Start Date: <u>9-27-23</u>	Survey Start Time: <u>9:44</u>
Thermometer ID: <u>E1054012261</u>	Calibration Due Date: <u>1-12-24</u>	pH Paper Lot# <u>NA</u>
Exposure Rate Meter + Probe Unit ID: <u>330334</u>	Calibration Due Date: <u>3-21-24</u>	Background: <u>5</u> µR/hr
Count Rate Meter + Probe Unit ID: <u>104861</u>	Calibration Due Date: <u>3-21-24</u>	Background: <u>20</u> cpm
Delivery Type (circle one): Direct Lock Box Commercial Carrier: <u>Fed Ex</u>	Total # of ESCs: <u>1</u>	

*True temperature is recorded which includes any applicable correction factors. (See Section 4.3 of SOP)					
External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	TRAX Matrix ID (circle all that apply):
A: <u>773302228725</u>	<u>5</u>	<u>20</u>	<u>20</u>	<u>-</u>	AQ WD WG WO
B:					WS WW SI UR
C:					SO OL BI VG
D:					WP SM AF
E:					
F:					

<u>Visual Inspection: External Shipping Container</u>	<u>(Circle response)</u>	<u>COC/Sample Inspection</u>	<u>(Circle response)</u>
Good Condition with no Leaks or Tears	<input checked="" type="radio"/> Yes <input type="radio"/> No	Sample Containers in good condition	<input checked="" type="radio"/> Yes <input type="radio"/> No
Marked Radioactive	<input type="radio"/> Yes <input checked="" type="radio"/> No	No spills or leaks	<input checked="" type="radio"/> Yes <input type="radio"/> No
UN2910	<input type="radio"/> Yes <input checked="" type="radio"/> No	Marked Radioactive	<input type="radio"/> Yes <input checked="" type="radio"/> No
Security Seals	<input checked="" type="radio"/> Yes <input type="radio"/> No	Durable labels w/indelible ink	<input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, intact?	<input checked="" type="radio"/> Yes <input type="radio"/> No N/A	COC relinquished/received correctly	<input checked="" type="radio"/> Yes <input type="radio"/> No
<u>Internal Shipping Container</u>		Adequate volume/filled correctly	<input checked="" type="radio"/> Yes <input type="radio"/> No
COC's Present	<input checked="" type="radio"/> Yes <input type="radio"/> No	Hold Time sufficient for analysis	<input checked="" type="radio"/> Yes <input type="radio"/> No
Well packaged container with no signs of leakage	<input checked="" type="radio"/> Yes <input type="radio"/> No	For VOC/Radon, Head space?	<input type="radio"/> Yes <input type="radio"/> No N/A
		If yes, <6mm?	<input type="radio"/> Yes <input type="radio"/> No N/A
		# of containers received matches # on COC	<input checked="" type="radio"/> Yes <input type="radio"/> No
		Samples received on ice?	<input type="radio"/> Yes <input checked="" type="radio"/> No
		Type (circle one):	<input type="radio"/> Bagged Ice <input type="radio"/> Loose Ice <input type="radio"/> Blue Ice N/A

PALA Sample Survey Form  
Client Name: GES  
SDG: ARS1-23-21S1

Pipette ID: NA

Tip Lot#: dk

Disposable pipette lot#: NA

### Sample Custodian

Survey End Date: 9-27-23

Survey/pH End Time: 9:44

pH re-check required? YES or NO

*NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.*

If YES: pH re-check date/time: / /

Analyst: \_\_\_\_\_

pH strip lot #: \_\_\_\_\_

Were all re-checked samples' pH < 3.3 YES or NOT

\*If no, complete and send to Project Management:  
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)  
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

ORIGIN ID: ICCA

200 FISHER STREET

SAN FRANCISCO, CA 94124  
UNITED STATES US

TC

SHIP DATE: 12SEP23  
ACTWGT: 1.00 LB  
CAD: 254128867/INET464

BILL SENDER

**ARS ALEUT ANALYTICAL, LLC**  
**2609 NORTH RIVER ROAD**

PORT ALLEN LA 70767

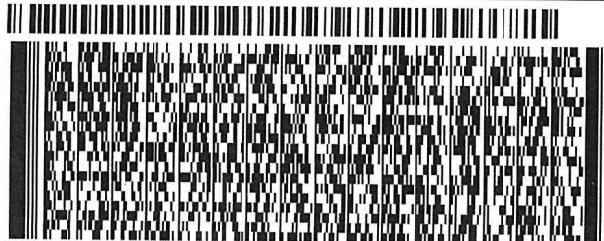
(225) 381-2991

INV

P01

RFF: J31000 600 02 04 05

DEPT.

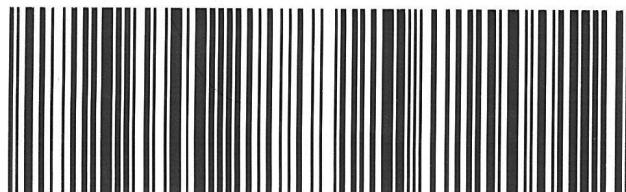


**FedEx**  
TRK# 0201 7733 0222 8725

**WED – 27 SEP AM  
STANDARD OVERNIGHT**

**XN OPLA**

70767  
LA-US MSY



#329747 09/26 583-14/8835/90E3

After nomination 41

- After printing this label:**

  1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
  2. Fold the printed page along the horizontal line.
  3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in

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utes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not im in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, per value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the . Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits. See current



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Port Allen, Louisiana 70767  
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## ARS Aleut Analytical, LLC

### Laboratory Analytical Report

ARS1-23-02208

GES-AIS, LLC  
[REDACTED]

1501 West Fountainhead Parkway  
Suite 550  
Tempe, AZ 94520  
[REDACTED]  
[REDACTED]

COC Number: [REDACTED] **100323RADC**

PO Number: **Parcel C Air Monitoring RAD**

Job Number: **J310000600**

Job Location: **Hunters Point Shipyard, Parcel C Removal Site Evaluation**

Questions regarding this analytical report should be addressed to ARS project manager, [REDACTED], who can be reached by email at [projectmanagers@aaa.aleutfederal.com](mailto:projectmanagers@aaa.aleutfederal.com).

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. A full list of the Port Allen, LA laboratory's certifications is provided with this report. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. I authorize release and issuance of this report on the date signed below.

[REDACTED] Laboratory Management, ARS Aleut Analytical

Signature

Date

Title

*This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.*





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## Certifications and Accreditations List

State or Accrediting Body (AB)	Certificate Number
AIHA LAP, LLC	209312
Alaska	LA01131
California	3085
ANAB DoD	ADE-1489
ANAB DOE	ADE-1489.01
Louisiana DEQ - NELAC	01949
Louisiana DHH	LA022
Nevada	LA011312024-02
New Jersey	LA009
New York	66780 (NPW) / 66781 (SHW)
Texas	T104704447-22-18
Utah	LA011312023-14
Washington	C1010

For additional information related to the specific matrices, methods, and analytes recognized by each accrediting body, contact us at [QA@aaa.aleutfederal.com](mailto:QA@aaa.aleutfederal.com) for additional information.



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

# **Case Narrative**



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**PROJECT SAMPLE IDENTIFICATION  
CROSS-REFERENCE  
TO ARS SAMPLE LABORATORY IDs**

Client Sample ID	ARS Aleut Analytical Sample ID
FBC-092523	ARS1-23-02208-001
MSC01-092523	ARS1-23-02208-002
MSC02-092523	ARS1-23-02208-003

Sample	Date Collected	Date Received	Analysis	Basis	Prep Date/Time	Analysis Date/Time
001	09/25/23 08:00	10/04/23	ASP-PU239-AF	As Received	11/02/23 07:30	11/07/23 02:03
001	09/25/23 08:00	10/04/23	ASP-TH-AF	As Received	11/01/23 08:16	11/04/23 02:41
001	09/25/23 08:00	10/04/23	GAM-A-AF	As Received	NA	10/24/23 14:18
001	09/25/23 08:00	10/04/23	GPC-SR90-AF	As Received	11/01/23 08:43	11/03/23 10:32
002	09/28/23 14:17	10/04/23	ASP-PU239-AF	As Received	11/02/23 07:30	11/07/23 02:03
002	09/28/23 14:17	10/04/23	ASP-TH-AF	As Received	11/01/23 08:16	11/04/23 02:41
002	09/28/23 14:17	10/04/23	GAM-A-AF	As Received	NA	10/27/23 19:37
002	09/28/23 14:17	10/04/23	GPC-SR90-AF	As Received	11/01/23 08:43	11/03/23 10:32
003	09/28/23 14:04	10/04/23	ASP-PU239-AF	As Received	11/02/23 07:30	11/07/23 02:03
003	09/28/23 14:04	10/04/23	ASP-TH-AF	As Received	11/01/23 08:16	11/04/23 02:41
003	09/28/23 14:04	10/04/23	GAM-A-AF	As Received	NA	10/27/23 19:39
003	09/28/23 14:04	10/04/23	GPC-SR90-AF	As Received	11/01/23 08:43	11/03/23 10:32

**SAMPLE RECEIPT/PREP**

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **PALA-SR-001-SOP Sample Receiving**. Sample date(s) and time(s) are listed as provided by the client. In regard to the Air Filters, no flow rate information was provided by the client. Turnaround time was set at 28 calendar days.



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## ANALYTICAL METHODS

Pu-239/240 analysis was performed using **PALA-RAD-026**, "Americium, Plutonium and Uranium in Water, Soil and Vegetation Matrices by Sequential Separation Using Eichrom Stabilized Chemistry Resin (with Vacuum Box System Option) (Eichrom ACW-02 & Eichrom ACW-03)".

Th-232 analysis was performed using **PALA-RAD-031**, "Thorium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom ACW-08 & Eichrom ACW-10)".

Ac-228, Am-241, Bi-212, Bi-214, Co-60, Cs-137, Eu-152, Eu-154, K-40, Pa-234, Pb-210, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, Tl-208, U-235, and U-238 analyses were performed using **PALA-RAD-007**, "Modified Gamma Emitting Radionuclides in Soil, Air, and Biota Matrices (EPA 901.1 Mod, SM 7120B, & HASL-300 Ga-01-R)".

Sr-90 analysis was performed using **PALA-RAD-032**, "Strontium 89, 90 and Total Strontium in Water, Soil and Vegetation Matrices by Eichrom Resin Separation (Eichrom SRW01, EPA 905.0, HASL 300 Sr-01-RC)".

## ANALYTICAL RESULTS

Fraction 001 in batch ARS1-B23-02054 has elevated MDA for Pu-239/240 with ACT of -1.044E-8 uCi/filter, MDA of 5.622E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-02042 has elevated MDA for Th-232 with ACT of 0.000 uCi/filter, MDA of 6.173E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01997 has elevated MDA for Ra-226 with ACT of 1.321E-6 uCi/filter, MDA of 9.752E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-02054 has elevated MDA for Pu-239/240 with ACT of 1.575E-8 uCi/filter, MDA of 4.877E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01997 has elevated MDA for Ra-226 with ACT of -9.342E-6 uCi/filter, MDA of 1.550E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-02054 has elevated MDA for Pu-239/240 with ACT of 0.000 uCi/filter, MDA of 8.562E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01997 has elevated MDA for Ra-226 with ACT of 3.797E-6 uCi/filter, MDA of 9.160E-6 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-02042: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-02054: ROI's adjusted to better fit the peaks of interest.

# Notes (Case Narrative)

## Definitions:

CRDL	Contract Required Detection Limit
CSU	Combined Standard Uncertainty
DLC	Decision Level Concentration (ANSI N42.23)
DO	Duplicate Original
DUP	Sample Duplicate
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MBL	Method Blank
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
N/A	Not Applicable
NC	Not Calculated
NP	Not Provided
NR	Not Referenced
PQL	Practical Quantitation Limit
SDG	Sample Deliverable Group

## Data Qualifiers:

B	The result of both the method blank and the target sample are above the MDL.
D	Sample analysis accomplished through dilution.
J	The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL.
Q	One or more quality control criteria failed.
U	Result is below the MDA, MDL, PQL, LOD, or LOQ
*	LCS/LCSD or Sample DUP fails all Duplicate criteria.
S	Spike
SC	Subcontracted out to another qualified laboratory.
H	Holding time exceeded
E	Exceeds MCL
**	Reporting Limit is higher than MCL; Target cannot be detected
#	Method/Matrix/Analyte not accredited for this certification

## Radiochemistry Comments:

- 1.0) All MDA values are calculated on a sample specific basis.
- 2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
- 3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
- 4.0) Ra-226 after a 21-day ingrowth period is determined via secular equilibrium with its daughter, Bismuth 214 (Gamma Spectroscopy only).
- 5.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).
- 6.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).
- 7.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (HPGe).
- 8.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).
- 9.0) Gamma spectroscopy results are calculated values based on the ORTEC® GammaVision ENV32 Analysis Engine.
- 10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**: Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Am-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCW02)
- 11.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)
- 12.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**: Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

## General Comments:

- 1.0) Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "M" or "Mod" to the procedure number (i.e. 901.1M, 901.1 Mod).
- 2.0) All NIOSH method results are reported without blank corrections applied.
- 3.0) Basis: "As Received" = analyzed as received from client; "Dry" = dried prior to being analyzed; "Dry Weight Corrected" = analyzed as received; result corrected for percent moisture.



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Analytical Results**



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**ARS Sample Delivery Group:** ARS1-23-02208**Client Sample ID:** FBC-092523**Sample Collection Date:** 09/25/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02208-001**Date Received:** 10/04/23**Report Date:** 11/07/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-02054-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	-1.044E-8	2.050E-8	5.622E-8	2.104E-8	4.8E-08	U	uCi/filter	11/07/23 2:03	[REDACTED]	74.8%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-02042-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	0.000	2.752E-8	6.173E-8	2.310E-8	1.4E-08	U	uCi/filter	11/04/23 2:41	[REDACTED]	68.1%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01997-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-9.838E-8	8.848E-7	9.109E-7	4.555E-7	0.00024	U	uCi/filter	10/24/23 14:18	[REDACTED]	N/A
Cs-137	-3.959E-7	7.491E-7	8.062E-7	4.031E-7	0.00048	U	uCi/filter	10/24/23 14:18	[REDACTED]	N/A
Ra-226	1.321E-6	7.707E-6	9.752E-6	4.876E-6	4.4E-06	U	uCi/filter	10/24/23 14:18	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-02045-04

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.839E-6	2.249E-6	3.743E-6	1.733E-6	2.4E-05	U	uCi/filter	11/03/23 10:32	[REDACTED]	104%



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**ARS Sample Delivery Group:** ARS1-23-02208**Client Sample ID:** MSC01-092523**Sample Collection Date:** 09/28/23 14:17**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02208-002**Date Received:** 10/04/23**Report Date:** 11/07/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-02054-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	1.575E-8	2.729E-8	4.877E-8	1.727E-8	4.8E-08	U	uCi/filter	11/07/23 2:03	[REDACTED]	81.6%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-02042-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	5.530E-8	3.813E-8	4.071E-8	1.286E-8	1.4E-08		uCi/filter	11/04/23 2:41	[REDACTED]	77.4%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01997-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	-9.252E-8	9.498E-7	1.045E-6	5.225E-7	0.00024	U	uCi/filter	10/27/23 19:37	[REDACTED]	N/A
Cs-137	-2.765E-7	8.060E-7	9.390E-7	4.695E-7	0.00048	U	uCi/filter	10/27/23 19:37	[REDACTED]	N/A
Ra-226	-9.342E-6	1.458E-5	1.550E-5	7.750E-6	4.4E-06	U	uCi/filter	10/27/23 19:37	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-02045-05

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	1.968E-6	2.076E-6	3.400E-6	1.567E-6	2.4E-05	U	uCi/filter	11/03/23 10:32	[REDACTED]	102%



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**ARS Sample Delivery Group:** ARS1-23-02208**Client Sample ID:** MSC02-092523**Sample Collection Date:** 09/28/23 14:04**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-02208-003**Date Received:** 10/04/23**Report Date:** 11/07/23

## Radiochemistry

**Analysis Method:** Eichrom ACW03**ABatch Sample ID:** ARS1-B23-02054-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Pu-239/240	0.000	4.272E-8	8.562E-8	3.585E-8	4.8E-08	U	uCi/filter	11/07/23 2:03	[REDACTED]	79.3%

**Analysis Method:** Eichrom ACW10**ABatch Sample ID:** ARS1-B23-02042-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Th-232	1.233E-7	6.059E-8	6.739E-8	2.673E-8	1.4E-08		uCi/filter	11/04/23 2:41	[REDACTED]	79.3%

**Analysis Method:** EPA 901.1M**ABatch Sample ID:** ARS1-B23-01997-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Co-60	2.224E-7	8.049E-7	8.274E-7	4.137E-7	0.00024	U	uCi/filter	10/27/23 19:39	[REDACTED]	N/A
Cs-137	-9.584E-8	6.913E-7	7.519E-7	3.760E-7	0.00048	U	uCi/filter	10/27/23 19:39	[REDACTED]	N/A
Ra-226	3.797E-6	7.282E-6	9.160E-6	4.580E-6	4.4E-06	U	uCi/filter	10/27/23 19:39	[REDACTED]	N/A

**Analysis Method:** Eichrom SRW01**ABatch Sample ID:** ARS1-B23-02045-06

Analysis Description	Analysis Results	CSU +/- 2 s	MDA	DLC	CRDL	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
SR-90	2.611E-6	2.317E-6	3.718E-6	1.723E-6	2.4E-05	U	uCi/filter	11/03/23 10:32	[REDACTED]	104%



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

# **GES-AIS, LLC**

## **Batch QC**



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-01997
SDG	ARS1-23-02208
Analysis	Gamma Spec (Short) in (Air Filters, Smears [AF])
Method	EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	10/30/23 10:10	Analysis Technician		
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-01997-01	LCS	AM-241	31.865	2.475	33.065	96.4	0.118
ARS1-B23-01997-01	LCS	CO-60	22.039	1.187	20.928	105.3	0.471
ARS1-B23-01997-01	LCS	CS-137	13.372	0.713	12.996	102.9	0.077

Duplicate RER/DER/RPD			Analysis Date	10/30/23 10:23	Analysis Technician		
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
AM-241	31.865	2.475	31.770	2.468	0.053	0.3	
CO-60	22.039	1.187	21.622	1.176	0.489	1.9	
CS-137	13.372	0.713	13.475	0.718	0.200	0.8	

Method Blank			Analysis Date	10/27/23 18:47	Analysis Technician		
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-01997-03	MBL	AC-228	-0.003	0.006	0.006	U	
ARS1-B23-01997-03	MBL	AM-241	-5.111E-4	0.001	0.002	U	
ARS1-B23-01997-03	MBL	BI-212	-0.004	0.012	0.012	U	
ARS1-B23-01997-03	MBL	BI-214	-0.002	0.004	0.004	U	
ARS1-B23-01997-03	MBL	CO-60	-1.699E-4	0.002	0.002	U	
ARS1-B23-01997-03	MBL	CS-137	2.230E-4	0.001	0.002	U	
ARS1-B23-01997-03	MBL	EU-152	4.228E-4	0.001	0.002	U	
ARS1-B23-01997-03	MBL	EU-154	9.782E-5	0.001	0.001	U	
ARS1-B23-01997-03	MBL	K-40	-0.021	0.029	0.025	U	
ARS1-B23-01997-03	MBL	PA-234	7.327E-4	0.002	0.002	U	
ARS1-B23-01997-03	MBL	PB-210	-0.009	0.016	0.017	U	
ARS1-B23-01997-03	MBL	PB-212	-0.004	0.002	0.003	U	
ARS1-B23-01997-03	MBL	PB-214	-0.004	0.004	0.003	U	
ARS1-B23-01997-03	MBL	RA-226	-0.081	0.025	0.031	U	
ARS1-B23-01997-03	MBL	RA-228	-0.003	0.006	0.006	U	
ARS1-B23-01997-03	MBL	TH-234	0.002	0.016	0.017	U	
ARS1-B23-01997-03	MBL	TL-208	-5.979E-4	0.002	0.002	U	
ARS1-B23-01997-03	MBL	U-235	0.002	0.005	0.006	U	
ARS1-B23-01997-03	MBL	U-238	0.002	0.016	0.017	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-02042
SDG	ARS1-23-02208
Analysis	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW10
Analysis Code	ASP-TH-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	11/04/23 02:41	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-02042-01	LCS	TH-230	5.716E-6	7.159E-7	5.389E-6	106.1	2.408E-8

Duplicate RER/DER/RPD			Analysis Date	11/04/23 02:41	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
TH-230	5.716E-6	7.159E-7	5.733E-6	7.178E-7	0.034	0.3	

Method Blank			Analysis Date	11/04/23 02:41	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-02042-03	MBL	TH-228	-1.541E-8	6.449E-8	1.260E-7	U	
ARS1-B23-02042-03	MBL	TH-230	1.224E-7	5.847E-8	6.130E-8		
ARS1-B23-02042-03	MBL	TH-232	1.528E-8	2.239E-8	3.749E-8	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-02045
SDG	ARS1-23-02208
Analysis	Strontium-90 in (Air Filters, Smears [AF])
Method	Eichrom SRW01
Analysis Code	GPC-SR90-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	11/03/23 10:32	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-02045-01	LCS	SR-90	2.248E-5	3.430E-6	1.930E-5	116.5	3.885E-7

Duplicate RER/DER/RPD			Analysis Date	11/03/23 10:32	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
SR-90	2.248E-5	3.430E-6	2.096E-5	3.206E-6	0.634	7.0	

Method Blank			Analysis Date	11/03/23 10:32	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-02045-03	MBL	SR-90	2.487E-6	2.622E-6	4.295E-6	U	



## QC Results per Analytical Batch

Analytical Batch	ARS1-B23-02054
SDG	ARS1-23-02208
Analysis	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])
Method	Eichrom ACW03
Analysis Code	ASP-PU239-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 60	< 140
Duplicate	Duplicate Error Ratio (DER):	< 3	
	Relative Percent Difference (RPD %):	≤ 25	

Laboratory Control Sample			Analysis Date	11/07/23 02:03	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	Expected Value	LCS Rec (%)	MDA
ARS1-B23-02054-01	LCS	PU-239/240	7.592E-6	9.420E-7	7.501E-6	101.2	1.668E-8

Duplicate RER/DER/RPD			Analysis Date	11/07/23 02:03	Analysis Technician	██████████	
Analyte	Results LCS	CSU LCS (2s)	Results LCSD	CSU LCSD (2s)	DER	RPD	
PU-239/240	7.592E-6	9.420E-7	7.614E-6	9.438E-7	0.032	0.3	

Method Blank			Analysis Date	11/07/23 02:03	Analysis Technician	██████████	
Analysis Batch Sample ID	QC Type	Analyte	Results	CSU (2s)	MDA	Qual	
ARS1-B23-02054-03	MBL	PU-238	1.341E-8	8.719E-8	1.611E-7	U	
ARS1-B23-02054-03	MBL	PU-239/240	8.045E-8	7.944E-8	1.262E-7	U	



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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

## **GES-AIS, LLC**

## **QC Summary**



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01997

**Lab Sample ID:** ARS1-B23-01997-01

**Method:** EPA 901.1M

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 10/30/23 10:10

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Am-241	33.065	31.865		uCi/filter	96.4	75 - 125
Co-60	20.928	22.039		uCi/filter	105.3	75 - 125
Cs-137	12.996	13.372		uCi/filter	102.9	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-01997

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-01997-02

**Matrix:** Air Filter

**Method:** EPA 901.1M

**Analysis Date:** 10/30/23 10:23

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Am-241	33.065	31.770		uCi/filter	96.1	75 - 125	0.3	25	0.053	3
Co-60	20.928	21.622		uCi/filter	103.3	75 - 125	1.9	25	0.489	3
Cs-137	12.996	13.475		uCi/filter	103.7	75 - 125	0.8	25	0.200	3



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## QC Sample Results

Analytical Batch: ARS1-B23-01997

Sample Type: MBL

Lab Sample ID: ARS1-B23-01997-03

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 10/27/23 18:47

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Ac-228	-0.003	0.006	0.006	0.003	U	uCi/filter
Am-241	-5.111E-4	0.001	0.002	0.001	U	uCi/filter
Bi-212	-0.004	0.012	0.012	0.006	U	uCi/filter
Bi-214	-0.002	0.004	0.004	0.002	U	uCi/filter
Co-60	-1.699E-4	0.002	0.002	8.750E-4	U	uCi/filter
Cs-137	2.230E-4	0.001	0.002	7.850E-4	U	uCi/filter
Eu-152	4.228E-4	0.001	0.002	8.650E-4	U	uCi/filter
Eu-154	9.782E-5	0.001	0.001	6.750E-4	U	uCi/filter
K-40	-0.021	0.029	0.025	0.012	U	uCi/filter
Pa-234	7.327E-4	0.002	0.002	0.001	U	uCi/filter
Pb-210	-0.009	0.016	0.017	0.009	U	uCi/filter
Pb-212	-0.004	0.002	0.003	0.002	U	uCi/filter
Pb-214	-0.004	0.004	0.003	0.002	U	uCi/filter
Ra-226	-0.081	0.025	0.031	0.016	U	uCi/filter
Ra-228	-0.003	0.006	0.006	0.003	U	uCi/filter
Th-234	0.002	0.016	0.017	0.009	U	uCi/filter
Tl-208	-5.979E-4	0.002	0.002	8.150E-4	U	uCi/filter
U-235	0.002	0.005	0.006	0.003	U	uCi/filter
U-238	0.002	0.016	0.017	0.009	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02208

**Analytical Batch:** ARS1-B23-01997

**Analysis:** Gamma Spec (Short) in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-01997-01		Lab Control Sample	Air Filter	EPA 901.1M	N/A
ARS1-B23-01997-02		Lab Control Sample Duplicate	Air Filter	EPA 901.1M	N/A
ARS1-B23-01997-03		Method Blank	Air Filter	EPA 901.1M	N/A
ARS1-B23-01997-04	ARS1-23-02208-001	FBC-092523	Air Filter	EPA 901.1M	N/A
ARS1-B23-01997-05	ARS1-23-02208-002	MSC01-092523	Air Filter	EPA 901.1M	N/A
ARS1-B23-01997-06	ARS1-23-02208-003	MSC02-092523	Air Filter	EPA 901.1M	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02042

**Lab Sample ID:** ARS1-B23-02042-01

**Method:** Eichrom ACW10

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 11/04/23 2:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Th-230	5.389E-6	5.716E-6		uCi/filter	106.1	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02042

**Lab Sample ID:** ARS1-B23-02042-02

**Method:** Eichrom ACW10

**Sample Type:** LCSD

**Matrix:** Air Filter

**Analysis Date:** 11/04/23 2:41

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Th-230	5.469E-6	5.733E-6		uCi/filter	104.8	75 - 125	0.3	25	0.034	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02042

**Lab Sample ID:** ARS1-B23-02042-03

**Method:** Eichrom ACW10

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 11/04/23 2:41

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Th-228	-1.541E-8	6.449E-8	1.260E-7	5.605E-8	U	uCi/filter
Th-230	1.224E-7	5.847E-8	6.130E-8	2.374E-8		uCi/filter
Th-232	1.528E-8	2.239E-8	3.749E-8	1.185E-8	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02208

**Analytical Batch:** ARS1-B23-02042

**Analysis:** Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-02042-01		Lab Control Sample	Air Filter	Eichrom ACW10	N/A
ARS1-B23-02042-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW10	N/A
ARS1-B23-02042-03		Method Blank	Air Filter	Eichrom ACW10	N/A
ARS1-B23-02042-04	ARS1-23-02208-001	FBC-092523	Air Filter	Eichrom ACW10	N/A
ARS1-B23-02042-05	ARS1-23-02208-002	MSC01-092523	Air Filter	Eichrom ACW10	N/A
ARS1-B23-02042-06	ARS1-23-02208-003	MSC02-092523	Air Filter	Eichrom ACW10	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02045

**Lab Sample ID:** ARS1-B23-02045-01

**Method:** Eichrom SRW01

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 11/03/23 10:32

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
SR-90	1.930E-5	2.248E-5		uCi/filter	116.5	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02045

**Sample Type:** LCSD

**Lab Sample ID:** ARS1-B23-02045-02

**Matrix:** Air Filter

**Method:** Eichrom SRW01

**Analysis Date:** 11/03/23 10:32

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
SR-90	1.961E-5	2.096E-5		uCi/filter	106.9	75 - 125	7.0	25	0.634	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02045

**Lab Sample ID:** ARS1-B23-02045-03

**Method:** Eichrom SRW01

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 11/03/23 10:32

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
SR-90	2.487E-6	2.622E-6	4.295E-6	1.983E-6	U	uCi/filter



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### QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02208

**Analytical Batch:** ARS1-B23-02045

**Analysis:** Strontium-90 in (Air Filters, Smears [AF])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-02045-01		Lab Control Sample	Air Filter	Eichrom SRW01	N/A
ARS1-B23-02045-02		Lab Control Sample Duplicate	Air Filter	Eichrom SRW01	N/A
ARS1-B23-02045-03		Method Blank	Air Filter	Eichrom SRW01	N/A
ARS1-B23-02045-04	ARS1-23-02208-001	FBC-092523	Air Filter	Eichrom SRW01	N/A
ARS1-B23-02045-05	ARS1-23-02208-002	MSC01-092523	Air Filter	Eichrom SRW01	N/A
ARS1-B23-02045-06	ARS1-23-02208-003	MSC02-092523	Air Filter	Eichrom SRW01	N/A



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02054

**Lab Sample ID:** ARS1-B23-02054-01

**Method:** Eichrom ACW03

**Sample Type:** LCS

**Matrix:** Air Filter

**Analysis Date:** 11/07/23 2:03

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits
Pu-239/240	7.501E-6	7.592E-6		uCi/filter	101.2	75 - 125



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02054

**Lab Sample ID:** ARS1-B23-02054-02

**Method:** Eichrom ACW03

**Sample Type:** LCSD

**Matrix:** Air Filter

**Analysis Date:** 11/07/23 2:03

Analyte	Spike Added	Analysis Result	Qual	Analysis Units	% Rec	% Rec Limits	RPD	RPD Limit	DER	DER Limit
Pu-239/240	7.620E-6	7.614E-6		uCi/filter	99.9	75 - 125	0.3	25	0.032	3



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## QC Sample Results

**Analytical Batch:** ARS1-B23-02054

**Lab Sample ID:** ARS1-B23-02054-03

**Method:** Eichrom ACW03

**Sample Type:** MBL

**Matrix:** Air Filter

**Analysis Date:** 11/07/23 2:03

Analyte	Analysis Result	CSU +/- 2 s	MDA	DLC	Qual	Analysis Units
Pu-238	1.341E-8	8.719E-8	1.611E-7	7.148E-8	U	uCi/filter
Pu-239/240	8.045E-8	7.944E-8	1.262E-7	5.403E-8	U	uCi/filter



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## QC Association Summary

**ARS Sample Delivery Group:** ARS1-23-02208

**Analytical Batch:** ARS1-B23-02054

**Analysis:** Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])

Batch Sample ID	Lab Sample ID	Client Sample ID	Matrix	Method	Prep Method
ARS1-B23-02054-01		Lab Control Sample	Air Filter	Eichrom ACW03	N/A
ARS1-B23-02054-02		Lab Control Sample Duplicate	Air Filter	Eichrom ACW03	N/A
ARS1-B23-02054-03		Method Blank	Air Filter	Eichrom ACW03	N/A
ARS1-B23-02054-04	ARS1-23-02208-001	FBC-092523	Air Filter	Eichrom ACW03	N/A
ARS1-B23-02054-05	ARS1-23-02208-002	MSC01-092523	Air Filter	Eichrom ACW03	N/A
ARS1-B23-02054-06	ARS1-23-02208-003	MSC02-092523	Air Filter	Eichrom ACW03	N/A



## Z Values per Analytical Batch

Analytical Batch	ARS1-B23-01997
SDG	ARS1-23-02208
Analysis	Gamma Spec (Short) in (Air Filters, Smears)
Analysis Test Method	PALA-RAD-007/EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	ZLCS	<=	3
Matrix Spike	ZMS	<=	3
Method Blank	ZBLANK	<=	3
Duplicate	ZDUP	<=	3

Laboratory Control Sample	Analysis Date	10/30/23 10:10	Analysis Technician			
QC Type	Analyte	Results	CSU (1s)	Expected Value	CSU (1s)	z
LCS	AM-241	31.865	1.263	33.065	0.001	0.950
LCSD	AM-241	31.770	1.259	33.065	0.001	1.028
LCS	CO-60	22.039	0.606	20.928	5.860E-4	1.834
LCSD	CO-60	21.622	0.600	20.928	5.860E-4	1.156
LCS	CS-137	13.372	0.364	12.996	3.119E-4	1.034
LCSD	CS-137	13.475	0.366	12.996	3.119E-4	1.309

Method Blank	Analysis Date	10/27/23 18:47	Analysis Technician			
QC Type	Analyte	Results	CSU (1s)			z
MBL	CO-60	-1.699E-4	8.659E-4			0.196
MBL	AM-241	-5.111E-4	6.772E-4			0.755
MBL	BI-212	-0.004	0.006			0.592
MBL	BI-214	-0.002	0.002			1.007
MBL	AC-228	-0.003	0.003			0.959
MBL	PA-234	7.327E-4	7.921E-4			0.925
MBL	TL-208	-5.979E-4	7.907E-4			0.756
MBL	U-235	0.002	0.002			0.890
MBL	U-238	0.002	0.008			0.265
MBL	CS-137	2.230E-4	7.109E-4			0.314
MBL	EU-152	4.228E-4	6.686E-4			0.632
MBL	EU-154	9.782E-5	5.180E-4			0.189
MBL	K-40	-0.021	0.015			1.419
MBL	PB-210	-0.009	0.008			1.091
MBL	PB-212	-0.004	0.001			3.361
MBL	PB-214	-0.004	0.002			2.327
MBL	RA-226	-0.081	0.013			6.285
MBL	RA-228	-0.003	0.003			0.959
MBL	TH-234	0.002	0.008			0.265



## Z Values per Analytical Batch

Analytical Batch	ARS1-B23-01997
SDG	ARS1-23-02208
Analysis	Gamma Spec (Short) in (Air Filters, Smears)
Analysis Test Method	PALA-RAD-007/EPA 901.1M
Analysis Code	GAM-A-AF
Report Units	uCi/filter

Duplicate Sample	Analysis Date	10/30/23 10:23	Analysis Technician				
QC Type	Analyte	Results Dup	CSU (1s)	Results DO	CSU (1s)	Z	
LCSD	AM-241	31.770	1.259	31.865	1.263	0.053	
LCSD	CO-60	21.622	0.600	22.039	0.606	0.489	
LCSD	CS-137	13.475	0.366	13.372	0.364	0.200	



## Z Values per Analytical Batch

Analytical Batch	ARS1-B23-02042
SDG	ARS1-23-02208
Analysis	Thorium in (Air Filters, Smears, Leak Test)
Analysis Test Method	PALA-RAD-031/Eichrom ACW-10
Analysis Code	ASP-TH-AF
Report Units	uCi/filter

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	ZLCS	<=	3
Matrix Spike	ZMS	<=	3
Method Blank	ZBLANK	<=	3
Duplicate	ZDUP	<=	3

Laboratory Control Sample	Analysis Date	11/04/23 02:41	Analysis Technician	███████████		
QC Type	Analyte	Results	CSU (1s)	Expected Value	CSU (1s)	Z
LCS	TH-230	5.716E-6	3.653E-7	5.389E-6	1.062E-7	0.858
LCSD	TH-230	5.733E-6	3.662E-7	5.469E-6	1.062E-7	0.694

Method Blank	Analysis Date	11/04/23 02:41	Analysis Technician	███████████		
QC Type	Analyte	Results	CSU (1s)	Z		
MBL	TH-228	-1.541E-8	3.290E-8	0.468		
MBL	TH-230	1.224E-7	2.983E-8	4.105		
MBL	TH-232	1.528E-8	1.142E-8	1.337		

Duplicate Sample	Analysis Date	11/04/23 02:41	Analysis Technician	███████████		
QC Type	Analyte	Results Dup	CSU (1s)	Results DO	CSU (1s)	Z
LCSD	TH-230	5.733E-6	3.662E-7	5.716E-6	3.653E-7	0.034



## Z Values per Analytical Batch

<b>Analytical Batch</b>	<b>ARS1-B23-02045</b>
<b>SDG</b>	<b>ARS1-23-02208</b>
<b>Analysis</b>	<b>Strontium-90 in (Air Filters, Smears [AF])</b>
<b>Analysis Test Method</b>	<b>PALA-RAD-032/Eichrom SRW01, HASL 300</b>
<b>Analysis Code</b>	<b>GPC-SR90-AF</b>
<b>Report Units</b>	<b>uCi/filter</b>

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
<b>Laboratory Control Sample</b>		<b>ZLCS</b>	<b>&lt;= 3</b>
<b>Matrix Spike</b>		<b>ZMS</b>	<b>&lt;= 3</b>
<b>Method Blank</b>		<b>ZBLANK</b>	<b>&lt;= 3</b>
<b>Duplicate</b>		<b>ZDUP</b>	<b>&lt;= 3</b>

<b>Laboratory Control Sample</b>	<b>Analysis Date</b>	11/03/23 10:32	<b>Analysis Technician</b>			
<b>QC Type</b>	<b>Analyte</b>	<b>Results</b>	<b>CSU (1s)</b>	<b>Expected Value</b>	<b>CSU (1s)</b>	<b>Z</b>
<b>LCS</b>	SR-90	2.248E-5	1.750E-6	1.930E-5	3.326E-7	1.785
<b>LCSD</b>	SR-90	2.096E-5	1.636E-6	1.961E-5	3.326E-7	0.807

<b>Method Blank</b>	<b>Analysis Date</b>	11/03/23 10:32	<b>Analysis Technician</b>			
<b>QC Type</b>	<b>Analyte</b>	<b>Results</b>	<b>CSU (1s)</b>	<b>Z</b>		
<b>MBL</b>	SR-90	2.487E-6	1.338E-6	1.859		

<b>Duplicate Sample</b>	<b>Analysis Date</b>	11/03/23 10:32	<b>Analysis Technician</b>			
<b>QC Type</b>	<b>Analyte</b>	<b>Results Dup</b>	<b>CSU (1s)</b>	<b>Results DO</b>	<b>CSU (1s)</b>	<b>Z</b>
<b>LCSD</b>	SR-90	2.096E-5	1.636E-6	2.248E-5	1.750E-6	0.634



## Z Values per Analytical Batch

<b>Analytical Batch</b>	<b>ARS1-B23-02054</b>
<b>SDG</b>	<b>ARS1-23-02208</b>
<b>Analysis</b>	<b>Plutonium (239, 240Pu) in (Air Filters,</b>
<b>Analysis Test Method</b>	<b>PALA-RAD-026/Eichrom ACW-03</b>
<b>Analysis Code</b>	<b>ASP-PU239-AF</b>
<b>Report Units</b>	<b>uCi/filter</b>

### Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
<b>Laboratory Control Sample</b>		<b>ZLCS</b>	<b>&lt;= 3</b>
<b>Matrix Spike</b>		<b>ZMS</b>	<b>&lt;= 3</b>
<b>Method Blank</b>		<b>ZBLANK</b>	<b>&lt;= 3</b>
<b>Duplicate</b>		<b>ZDUP</b>	<b>&lt;= 3</b>

Laboratory Control Sample	Analysis Date	11/07/23 02:03	Analysis Technician	██████████		
QC Type	Analyte	Results	CSU (1s)	Expected Value	CSU (1s)	Z
<b>LCS</b>	PU-239/240	7.592E-6	4.806E-7	7.501E-6	1.263E-7	0.184
<b>LCSD</b>	PU-239/240	7.614E-6	4.815E-7	7.620E-6	1.263E-7	0.012

Method Blank	Analysis Date	11/07/23 02:03	Analysis Technician	██████████		
QC Type	Analyte	Results	CSU (1s)	Z		
<b>MBL</b>	PU-238	1.341E-8	4.448E-8	0.301		
<b>MBL</b>	PU-239/240	8.045E-8	4.053E-8	1.985		

Duplicate Sample	Analysis Date	11/07/23 02:03	Analysis Technician	██████████		
QC Type	Analyte	Results Dup	CSU (1s)	Results DO	CSU (1s)	Z
<b>LCSD</b>	PU-239/240	7.614E-6	4.815E-7	7.592E-6	4.806E-7	0.032



2609 North River Road • Port Allen, Louisiana 70767

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# **ARS Aleut Analytical, LLC**

## **Analytical Reports**

**for**

**GES-AIS, LLC**

# **Sample Management Records**

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **00323RADC**



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC:	RAD
WBS Code: J310000600	Ship to: 2609 North River Road, Port Allen, LA 70767-3469	

Comments:													Code	Matrix				
												A	Air					
												AQ	Air Quality Control Matrix					
												Code	Container/Preservative					
												5	1x 1-L Plastic, HNO3, pH < 2					
												15	1x 250-mL Plastic, 4 Degrees C					
Equipment:																		
Event: Parcel C Air Monitoring RAD						15	15	5										
	Sample ID	Matrix	Date	Time	Samp Init.								Location ID	Sample Type	Depth (ft bgs) Top - Bottom	Cooler	Comments	
1	FBC-092523	AQ	09/25/2023	0800		X	X	X					FIELDQC	FB1	0.00	0.00	1	
2	MSC01-092523	A	09/28/2023	1417		X	X	X					MSC01	N1	0.00	0.00	1	TOTAL FLOW (L):
3	MSC02-092523	A	09/28/2023	1404		X	X	X					MSC02	N1	0.00	0.00	1	TOTAL FLOW (L):
Turnaround Time: 28 days																		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	10/3/23	1300	FEDEX	10/3/23	1300	Shipping Date: 10/3/2023 / FEDEX / 7733 9946 0921
			[Redacted]	10-4-23	16:38	Received by Laboratory: (Signature, Date, Time) & condition



Procedures: GES-003 / EPA 900.0M  
File ID Number: 100323RADC

Start Date: 9/25/23  
Stop Date: 9/28/23

Field Entry

Station	Sample ID	Date In:	Time In:	Date Out:	Time Out:	Initial Flow (LPM)	Final Flow (LPM)	Flow volume Cu.M	Julian Date for Date Out	Total Run Time (Days)	Total Run Time (Hours)	Run Time (Minutes)	Average Flow (LPM)	Initial Flow Rate (CFM)	Final Flow Rate (CFM)	Average Flow Rate (CFM)	Average Flow Rate (Cu.M/min)	Flow Rate (Cu.M/min)	Flow Rate (L)	
1 MSC01	FBC-092523	9/25/2023	800	9/25/2023	800	3.50	14:17	60	60	271	3.44	82.45	4947.0	60	2.11888	2.11888	2.11888	3.6	0.06	296.820
2 MSC02	MSC02-092523	09/25/23	4.00	09/28/23	14:04	60	60	295.4	271	3.42	82.07	4924.0	60	2.11888	2.11888	2.11888	3.6	0.06	295.440	

FORMULAS:

Number of Days = (Date Out + Time Out) minus (Date In+Time In)

Number of Minutes = # of Days X 24hr X 60min

Flow Rate (m³/h) = Flow Rate (CFM) x 60min x (12in x 2.54cm/in / 100cm/m)^3

Mid-Sample Date/Time = [(Date+Time Out) + (Date+Time In)] / 2

Flow Rate (Cu.M/min) = CFM X 0.0283168466 Cu.M/CF

Flow Rate (LPM) = Cu.M X 1000

Total Flow (L) = LPM X Total Minutes

## SDG Report - Samples and Containers

SDG Specific Data										
SDG	ARS1-23-02208		TAT Days	28 Calendar Days		Project Type	Environmental			
Sample Count	3	Rpt Level	2b	Date Received	10/04/2023		COC Number	██████████ 100323RADC		
Client	GES-AIS, LLC		Discrepancy Resol	N/A		PO Number	Parcel C Air Monitoring RAD			
Client Code	1138		Client Deadline	11/01/2023		Job Number	J310000600			
Profile Number	PN-01440					Job Location	Hunters Point Shipyard, Parcel C Removal Site Evaluation			
Comment										
Samples and Containers Checked In Thus Far										
FR	Name	Matrix	Start Date	End Date	Disp	Hold	Arch	Storage	Comments	
001	FBC-092523	Air Filter	09/25/2023 07:59	09/25/2023 08:00	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448963	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/25/2023 07:59	AF Volume (CuM):		0.001			
002	MSC01-092523	Air Filter	09/28/2023 14:16	09/28/2023 14:17	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448964	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/28/2023 14:16	AF Volume (CuM):		0.001			
003	MSC02-092523	Air Filter	09/28/2023 14:03	09/28/2023 14:04	H	30	10	PrePrep		
	IC_ID	Cnt	Container Type	AF Volume (L)	AF Units		Rate	Mins	Comments	
	448965	1	HDP Container	1	LPM			1		
			Mid-Sample Date:	09/28/2023 14:03	AF Volume (CuM):		0.001			

## SDG Report - Analysis Assignments

<b>SDG</b>	<b>ARS1-23-02208</b>	<b>Sample Count</b>	<b>3</b>
<b>Client</b>	<b>GES-AIS, LLC</b>	<b>Analysis Count</b>	<b>4-12</b>

Sample Count Totals Per Analysis			
Analysis Code	Analysis Description	In/Out	Samples Count
ASP-PU239-AF	Plutonium (239, 240Pu) in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	3
ASP-TH-AF	Thorium in (Air Filters, Smears, Leak Test [AF, SM, LT])	I	3
GAM-A-AF	Gamma Spec (Short) in (Air Filters, Smears [AF])	I	3
GPC-SR90-AF	Strontium-90 in (Air Filters, Smears [AF])	I	3

Analyses Assigned Per Fraction		
Fraction	Analysis Code	X = Assigned
001	ASP-PU239-AF	X
001	ASP-TH-AF	X
001	GAM-A-AF	X
001	GPC-SR90-AF	X
002	ASP-PU239-AF	X
002	ASP-TH-AF	X
002	GAM-A-AF	X
002	GPC-SR90-AF	X
003	ASP-PU239-AF	X
003	ASP-TH-AF	X
003	GAM-A-AF	X
003	GPC-SR90-AF	X

Client Name: GES-AIS, LLC

Profile Name: Parcel C Rad Sampling

Report Level: 2b

Analysis Code	Prep Type	Units	Aliquot	Prep Code	Procedure	Count Time					
ASP-PU239-AF	WRAD	uCi	filter	N/A	PALA-RAD-026						
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
ASP-TH-AF	Pu-239/240 (15117-48-3)			4.8E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Th-232 (7440-29-1)			1.4E-08 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Analyte			RDL	LCS LL/UL	MS LL/UL	RadY LL/UL	GravY LL/UL	RER	RPD	Surr LL/UL
GAM-A-AF	Ac-228 (14331-83-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Am-241 (14596-10-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-212 (14913-49-6)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Bi-214 (14733-03-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Co-60 (10198-40-0)			0.00024 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Cs-137 (10045-97-3)			0.00048 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-152 (14683-23-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Eu-154 (15585-10-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	K-40 (13966-00-2)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-210 (14255-04-0)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-212 (15092-94-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Pb-214 (15067-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-226 (13982-63-3)			4.4E-06 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Ra-228 (15262-20-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Th-234 (15065-10-8)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	Tl-208 (14913-50-9)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-235 (15117-96-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
	U-238 (7440-61-1)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

DQO Report for SDG

ARS1-23-02208

GAM-A-AF	Pa-234 (15100-28-4)			uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A
GPC-SR90-AF	WRAD	uCi	filter	N/A	PALA-RAD-032						
	<b>Analyte</b>			<b>RDL</b>	<b>LCS LL/UL</b>	<b>MS LL/UL</b>	<b>RadY LL/UL</b>	<b>GravY LL/UL</b>	<b>RER</b>	<b>RPD</b>	<b>Surr LL/UL</b>
	Sr-90 (10098-97-2)			2.4E-05 uCi/filter	75/125	60/140	30/110	30/110	1	25	N/A

Analysis Code	Fraction	Units	Aliquot	Conductivity		Analyte Count
ASP-PU239-AF	001	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Pu-239/240	
ASP-PU239-AF	002	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Pu-239/240	
ASP-PU239-AF	003	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Pu-239/240	
ASP-TH-AF	001	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Th-232	
ASP-TH-AF	002	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Th-232	
ASP-TH-AF	003	uCi	filter	N/A		1
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Th-232	
GAM-A-AF	001	uCi	filter	N/A		19
		<b>Group</b>		<b>Analyte</b>		
		Parcel C Rad Sampling			Ac-228	
		Parcel C Rad Sampling			Am-241	
		Parcel C Rad Sampling			Bi-212	
		Parcel C Rad Sampling			Bi-214	
		Parcel C Rad Sampling			Co-60	
		Parcel C Rad Sampling			Cs-137	
		Parcel C Rad Sampling			Eu-152	

GAM-A-AF	001	Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238
GAM-A-AF	002	uCi	filter
		Group	Analyte
		Parcel C Rad Sampling	Ac-228
		Parcel C Rad Sampling	Am-241
		Parcel C Rad Sampling	Bi-212
		Parcel C Rad Sampling	Bi-214
		Parcel C Rad Sampling	Co-60
		Parcel C Rad Sampling	Cs-137
		Parcel C Rad Sampling	Eu-152
		Parcel C Rad Sampling	Eu-154
		Parcel C Rad Sampling	K-40
		Parcel C Rad Sampling	Pa-234
		Parcel C Rad Sampling	Pb-210
		Parcel C Rad Sampling	Pb-212
		Parcel C Rad Sampling	Pb-214
		Parcel C Rad Sampling	Ra-226
		Parcel C Rad Sampling	Ra-228
		Parcel C Rad Sampling	Th-234
		Parcel C Rad Sampling	Tl-208
		Parcel C Rad Sampling	U-235
		Parcel C Rad Sampling	U-238

DQO Report for SDG

ARS1-23-02208

GAM-A-AF	003	uCi	filter	N/A	19
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Ac-228	
Parcel C Rad Sampling				Am-241	
Parcel C Rad Sampling				Bi-212	
Parcel C Rad Sampling				Bi-214	
Parcel C Rad Sampling				Co-60	
Parcel C Rad Sampling				Cs-137	
Parcel C Rad Sampling				Eu-152	
Parcel C Rad Sampling				Eu-154	
Parcel C Rad Sampling				K-40	
Parcel C Rad Sampling				Pa-234	
Parcel C Rad Sampling				Pb-210	
Parcel C Rad Sampling				Pb-212	
Parcel C Rad Sampling				Pb-214	
Parcel C Rad Sampling				Ra-226	
Parcel C Rad Sampling				Ra-228	
Parcel C Rad Sampling				Th-234	
Parcel C Rad Sampling				Tl-208	
Parcel C Rad Sampling				U-235	
Parcel C Rad Sampling				U-238	
GPC-SR90-AF	001	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	
GPC-SR90-AF	002	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	
GPC-SR90-AF	003	uCi	filter	N/A	1
<b>Group</b>				<b>Analyte</b>	
Parcel C Rad Sampling				Sr-90	

# PALA Sample Receipt Inspection Form

Client Name: BES

SDG: ARS1-23-2208

Sample Custodian	Survey Start Date: <u>10-4-23</u>	Survey Start Time: <u>10:45</u>
Thermometer ID: <u>E1054012261</u>	Calibration Due Date: <u>1-12-24</u>	pH Paper Lot# <u>N/A</u>
Exposure Rate Meter + Probe Unit ID: <u>3303334</u>	Calibration Due Date: <u>3-21-24</u>	Background: <u>5</u> µR/hr
Count Rate Meter + Probe Unit ID: <u>104861</u>	Calibration Due Date: <u>3-21-24</u>	Background: <u>20</u> cpm
Delivery Type (circle one): Direct Lock Box Commercial Carrier: <u>Commercial Carrier</u>	<u>FEDEX</u>	Total # of ESCs: <u>1</u>

External Shipping Container Tracking:	Exposure Rate (µR/hr) (limit <500 µR/hr)	Max External Swipe Counts (cpm)	Max Internal Swipe Counts (cpm)	ESC True Temps* (°C)	*True temperature is recorded which includes any applicable correction factors.			
					TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP)			
A: <u>773399460921</u>	<u>5</u>	<u>20</u>	<u>20</u>	<u>—</u>	<input type="checkbox"/> AQ	<input type="checkbox"/> WD	<input type="checkbox"/> WG	<input type="checkbox"/> WO
B:					<input type="checkbox"/> WS	<input type="checkbox"/> WW	<input type="checkbox"/> SI	<input type="checkbox"/> UR
C:					<input type="checkbox"/> SO	<input type="checkbox"/> OL	<input type="checkbox"/> BI	<input type="checkbox"/> VG
D:					<input type="checkbox"/> WP	<input type="checkbox"/> SM	<input checked="" type="checkbox"/> AF	
E:								
F:								

<u>Visual Inspection: External Shipping Container</u>	<u>(Circle response)</u>		<u>COC/Sample Inspection</u>		<u>(Circle response)</u>	
Good Condition with no Leaks or Tears	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Sample Containers in good condition	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Marked Radioactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No	No spills or leaks	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
UN2910	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Marked Radioactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Security Seals	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Durable labels w/indelible ink	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
If yes, intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	COC relinquished/received correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
<u>Internal Shipping Container</u>			Adequate volume/filled correctly	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC's Present	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Hold Time sufficient for analysis	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Well packaged container with no signs of leakage	<input checked="" type="radio"/> Yes	<input type="radio"/> No	For VOC/Radon, Head space?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
			If yes, <6mm?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
			# of containers received matches # on COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
			Samples received on ice?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Comments:	Type (circle one): <input type="radio"/> Bagged Ice <input type="radio"/> Loose Ice <input type="radio"/> Blue Ice <input checked="" type="radio"/> N/A					

PALA Sample Survey Form

Client Name: GES  
SDG: ARS1-23-2208

Pipette ID: A

Tip Lot#: MF

Disposable pipette lot#: Not

Sample Cust

Survey End Date: 10-14-23

Survey/pH End Time: 10:47

pH re-check required? YES or NO

*NOTE: Any metals sample acidified at sample receiving must be re-checked after a 24 hour hold.*

If YES: pH re-check date/time: / /

Analyst: \_\_\_\_\_

pH strip lot #: \_\_\_\_\_

Were all re-checked samples' pH < 2? YES or NO

\*If no, complete and send to Project Management:  
1. Section A of PALA-SR-001-FM-05 (24 Hour Hold pH Readjustment)  
2. SR section of PALA-SR-001-FM-03 (Discrepant Sample Receipt Report).

ORIGIN ID:JCCA  
[REDACTED]  
200 FISHER STREET

SAN FRANCISCO, CA 94124  
UNITED STATES US

TO [REDACTED]

SHIP DATE: 19SEP23  
ACTWGT: 1.00 LB  
CAD: 254128867/INET4640

BILL SENDER

**ARS ALEUT ANALYTICAL, LLC**  
**2609 NORTH RIVER ROAD**

**PORT ALLEN LA 70767**

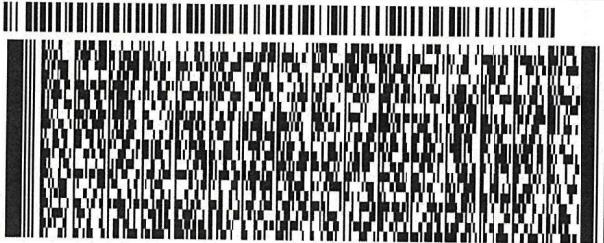
(225) 381-2991

REF: J31000.600 02.04.05

INV:

PO:

DEPT:

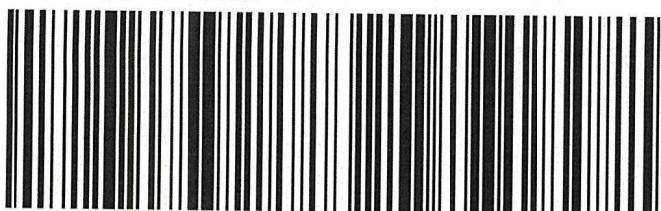


583348B359AE3

WED - 20 SEP 5:00P

STANDARD OVERNIGHT

TRK# 7733 9946 0921

**XN OPLA**70767  
LA-US MSY**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000 e.g., jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

October 19, 2023

[REDACTED]  
AIS-GES, LLC  
1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

**Laboratory Workorder ID: B284043**

Client Project ID: J310000600 PARCEL C HUNTERS PT

Received: October 11, 2023

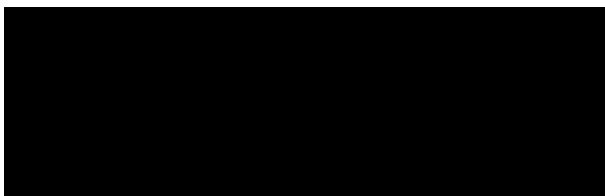
Reported: October 19, 2023

Attached are the results we obtained on the analysis of your samples submitted to Analytics. Any Chains-of-Custody associated by this sample group are enclosed. Air concentrations are calculated as a convenience to the client and the overall accuracy of this result depends on both the accuracy of the air volume and the amount found by analysis. Theoretical air volumes for passive monitors are calculated using the sampling time submitted and the manufacturer's listed sampling rate for each compound. Results provided in this report relate only to the items tested.

For blanks and non-detects the results indicated with a '<' value represents the reporting limit for the analysis. Unless otherwise noted results are not corrected for blank values.

Unless the signature of the appropriate manager(s) appears on this report, this report should be considered PRELIMINARY and is subject to change.

We appreciate your confidence in allowing Analytics to be your testing laboratory. Any questions regarding this report can be addressed by calling our customer services department at (800) 888-8061.



[REDACTED], CIH  
Technical Director

Enclosures



## Built Environment Testing Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

### Final Report

AIS-GES, LLC  
1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

Customer: PARCEL C1

Attention: [REDACTED] [REDACTED]

Date Received: 10/11/23

PO Number J310000600-019

Client Project ID J310000600 PARCEL C  
HUNTERS PT

Lab ID:	B284043001	Sample ID:	PM042523-51	FIELDQC	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/02/2023 8:00 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	0 L	1000 ug			2900 ug	--

Lab ID:	B284043002	Sample ID:	TPS042523-52	FIELDQC	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/02/2023 8:00 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	0 L	1000 ug			2700 ug	--
Lead	40 CFR Part 50 Appendix G	10/16/23	0 L	14 ug			< 14 ug	--
Manganese	40 CFR Part 50 Appendix G	10/16/23	0 L	98 ug			< 98 ug	--

Lab ID:	B284043003	Sample ID:	PM042523-53	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/03/2023 6:47 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1657750 L	1000 ug			20500 ug	12 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B284043004	Sample ID:	TSP042523-54	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/03/2023 6:47 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1655090 L	1000 ug			38800 ug	23 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1655090 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1655090 L	98 ug			< 98 ug	< 0.059 ug/M3

Lab ID:	B284043005	Sample ID:	PM042523-55	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/03/2023 6:55 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1634310 L	1000 ug			29000 ug	18 ug/M3

Lab ID:	B284043006	Sample ID:	TSP042523-56	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/03/2023 6:55 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1732090 L	1000 ug			45800 ug	26 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1732090 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1732090 L	98 ug			< 98 ug	< 0.057 ug/M3

Lab ID:	B284043007	Sample ID:	PM042523-57	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/04/2023 6:52 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1666820 L	1000 ug			29600 ug	18 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B284043008	Sample ID:	TSP042523-58	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/04/2023 6:52 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1658870 L	1000 ug			61200 ug	37 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1658870 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1658870 L	98 ug			< 98 ug	< 0.059 ug/M3

Lab ID:	B284043009	Sample ID:	PM042523-59	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/04/2023 7:02 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1652280 L	1000 ug			35700 ug	22 ug/M3

Lab ID:	B284043010	Sample ID:	TSP042523-60	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/04/2023 7:02 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1751400 L	1000 ug			61300 ug	35 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1751400 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1751400 L	98 ug			< 98 ug	< 0.056 ug/M3

Lab ID:	B284043011	Sample ID:	PM042523-61	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 6:52 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1675090 L	1000 ug			40000 ug	24 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B284043012	Sample ID:	TSP042523-62	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 6:52 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1661940 L	1000 ug			87800 ug	53 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1661940 L	14 ug			17.7 ug	0.011 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1661940 L	98 ug			< 98 ug	< 0.059 ug/M3

Lab ID:	B284043013	Sample ID:	PM042523-63	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 7:01 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	1654750 L	1000 ug			44100 ug	27 ug/M3

Lab ID:	B284043014	Sample ID:	TSP042523-64	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 7:01 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	1754940 L	1000 ug			83000 ug	47 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	1754940 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	1754940 L	98 ug			< 98 ug	< 0.056 ug/M3

Lab ID:	B284043015	Sample ID:	PM042523-65	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 2:32 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	530660 L	1000 ug			15300 ug	29 ug/M3



## Built Environment Testing Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

### Final Report

Lab ID:	B284043016	Sample ID:	TSP042523-66	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 2:32 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	529980 L	1000 ug			32300 ug	61 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	529980 L	14 ug			< 14 ug	< 0.026 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	529980 L	98 ug			< 98 ug	< 0.185 ug/M3

Lab ID:	B284043017	Sample ID:	PM042523-67	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 2:43 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/12/23	531180 L	1000 ug			16500 ug	31 ug/M3

Lab ID:	B284043018	Sample ID:	TSP042523-68	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/05/2023 2:43 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/12/23	566190 L	1000 ug			28700 ug	51 ug/M3
Lead	40 CFR Part 50 Appendix G	10/16/23	566190 L	14 ug			< 14 ug	< 0.025 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/16/23	566190 L	98 ug			< 98 ug	< 0.173 ug/M3



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

### General Laboratory Comments

#### Abbreviations:

ug = micrograms; mg=milligrams; g = grams, ppm=parts per million (volume), ppb = parts per billion (volume), mg/M3=milligrams per cubic meter of air, ug/M3=micrograms per cubic meter of air; Min=minutes, Qual=Qualifiers

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # █ 101023AIRC



B284043

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC: █	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:																
Equipment:																
Event: Parcel C Air Monitoring																
Sample ID	Matrix	Date	Time	Samp Init.						Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments	
												Top - Bottom				
1 PM042523-51	AQ	10/02/2023	0800	X						FIELDQC	FB1	0.00	0.00	1	VOLUME (M3):	
2 TSP042523-52	AQ	10/02/2023	0800		X X					FIELDQC	FB2	0.00	0.00	1	VOLUME (M3):	
3 PM042523-53	A	10/03/2023	0647	X						MSC01	N1	0.00	0.00	1	VOLUME (M3):	
4 TSP042523-54	A	10/03/2023	0647		X X					MSC01	N1	0.00	0.00	1	VOLUME (M3):	
5 PM042523-55	A	10/03/2023	0655	X						MSC02	N1	0.00	0.00	1	VOLUME (M3):	
6 TSP042523-56	A	10/03/2023	0655		X X					MSC02	N1	0.00	0.00	1	VOLUME (M3):	
Turnaround Time: 5 days																

Delivery Address / Carrier / Airbill Number	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
██████████	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 10/10/2023 / FEDEX / 7735 0440 5496
				10/11/23	11:45	Received by Laboratory: (Signature, Date, Time) & condition
						Custody 10/11/23 11:45 Seal intact

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

[REDACTED] 1501 W. Mainframehead Parkway, Suite 550, Tempe, Arizona 85282

COC # [REDACTED] 101023AIRC



B284043

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 10/10/2023 / FEDEX / 7735 0440 5496
			[REDACTED]	10/11/23	11:45	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]			9/11/23 Custody 11:45 Seal Intact

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # █ 101023AIRC



B284043

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 10/10/2023 / FEDEX / 7735 0440 5496
			[REDACTED]	10/11/23	11:45	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]			10/11/23 Cestody 11:45 Seal intact

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # [REDACTED] 101023AIRC



B284043

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation		Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA		Event: Parcel C Air Monitoring											
Project Number: J310000600		POC [REDACTED]													
WBS Code: J310000600		Ship to: 10329 Stony Run Lane, Ashland, VA 23005													
Comments:				<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> <tr> <td>1</td> <td>1x Envelope, None</td> </tr> </table>		Code	Matrix	A	Air	Code	Container/Preservative	1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None
Code	Matrix														
A	Air														
Code	Container/Preservative														
1	1x 250-mL Plastic, 4 Degrees C														
1	1x Envelope, None														
Equipment:															
Event: Parcel C Air Monitoring		1	1	1											
	Sample ID	Matrix	Date	Time	Samp Init.			Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments		
1	PM042523-65	A	10/05/2023	1432	[REDACTED]	X		MSC01	N1	0.00	0.00	1	VOLUME (M3):		
2	TSP042523-66	A	10/05/2023	1432	[REDACTED]	X X		MSC01	N1	0.00	0.00	1	VOLUME (M3):		
3	PM042523-67	A	10/05/2023	1443	[REDACTED]	X		MSC02	N1	0.00	0.00	1	VOLUME (M3):		
4	TSP042523-68	A	10/05/2023	1443	[REDACTED]	X X		MSC02	N1	0.00	0.00	1	VOLUME (M3):		
Turnaround Time: 5 days															

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/10/23	1300	FEDEX	10/10/23	1300	Shipping Date: 10/10/2023 / FEDEX / 7735 0440 5496
			[REDACTED]	10/11/23	11:45	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]	[REDACTED]	[REDACTED]	10/11/23 Custody 11:45 Seal Intact



B284043

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation					Event: Parcel C Air Monitoring	
Project Number: J310000600						
WBS Code: J310000600						

	Sample ID	Matrix	Date	Time	Comments
1	PM042523-51	AQ	10/02/2023	0800	VOLUME (M3):
2	TSP042523-52	AQ	10/02/2023	0800	VOLUME (M3):
3	PM042523-53	A	10/03/2023	0647	VOLUME (M3): 1657.75
4	TSP042523-54	A	10/03/2023	0647	VOLUME (M3): 1655.09
5	PM042523-55	A	10/03/2023	0655	VOLUME (M3): 1634.31
6	TSP042523-56	A	10/03/2023	0655	VOLUME (M3): 1732.09
7	PM042523-57	A	10/04/2023	0652	VOLUME (M3): 1666.82
8	TSP042523-58	A	10/04/2023	0652	VOLUME (M3): 1658.87
9	PM042523-59	A	10/04/2023	0702	VOLUME (M3): 1652.28
10	TSP042523-60	A	10/04/2023	0702	VOLUME (M3): 1751.40
11	PM042523-61	A	10/05/2023	0652	VOLUME (M3): 1675.09
12	TSP042523-62	A	10/05/2023	0652	VOLUME (M3): 1661.94
13	PM042523-63	A	10/05/2023	0701	VOLUME (M3): 1654.75
14	TSP042523-64	A	10/05/2023	0701	VOLUME (M3): 1754.94
15	PM042523-65	A	10/05/2023	1432	VOLUME (M3): 530.66
16	TSP042523-66	A	10/05/2023	1432	VOLUME (M3): 529.98
17	PM042523-67	A	10/05/2023	1443	VOLUME (M3): 531.18
18	TSP042523-68	A	10/05/2023	1443	VOLUME (M3): 566.19



B284043

<b>Sample ID</b>	<b>Cubic Meter</b>	<b>Volume (L)</b>
PM042523-53	1657.75	1657750
TSP042523-54	1655.09	1655090
PM042523-55	1634.31	1634310
TSP042523-56	1732.09	1732090
PM042523-57	1666.82	1666820
TSP042523-58	1658.87	1658870
PM042523-59	1652.28	1652280
TSP042523-60	1751.4	1751400
PM042523-61	1675.09	1675090
TSP042523-62	1661.94	1661940
PM042523-63	1654.75	1654750
TSP042523-64	1754.94	1754940
PM042523-65	530.66	530660
TSP042523-66	529.98	529980
PM042523-67	531.18	531180
TSP042523-68	566.19	566190



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA-LAP, LLC Accreditation ID 100531

## Level 2 QA/QC Summary Report

Work Order #: B284043

Report Date: 10/19/2023

**Batch ID:** ICP231010C      **Analysis Date:** 10/16/2023  
**Media::** 8X10PW GFF      **Preparation Date** 10/16/2023

### Blank Spike Results

QC ID	Parameter	Percent Recovery				
		LCS	LCSD	Acceptance	RPD	Limit
LCS ICP231010C	Lead	92	91	75-125	1.1	20
LCS ICP231010C	Manganese	95	95	75-125	0.3	20

### Method Blank Results

QC ID	Parameter	Result	RL	Units	
				ug	ug
LMB ICP231010C	Lead	< 14	14		
LMB ICP231010C	Manganese	< 98	98		



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Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

October 24, 2023

[REDACTED]  
AIS-GES, LLC  
1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

**Laboratory Workorder ID: B291104**

Client Project ID: J310000600

Received: October 18, 2023

Reported: October 24, 2023

Attached are the results we obtained on the analysis of your samples submitted to Analytics. Any Chains-of-Custody associated by this sample group are enclosed. Air concentrations are calculated as a convenience to the client and the overall accuracy of this result depends on both the accuracy of the air volume and the amount found by analysis. Theoretical air volumes for passive monitors are calculated using the sampling time submitted and the manufacturer's listed sampling rate for each compound. Results provided in this report relate only to the items tested.

For blanks and non-detects the results indicated with a '<' value represents the reporting limit for the analysis. Unless otherwise noted results are not corrected for blank values.

Unless the signature of the appropriate manager(s) appears on this report, this report should be considered PRELIMINARY and is subject to change.

We appreciate your confidence in allowing Analytics to be your testing laboratory. Any questions regarding this report can be addressed by calling our customer services department at (800) 888-8061.

[REDACTED]  
[REDACTED], CIH  
Technical Director

Enclosures



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

AIS-GES, LLC  
1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

Customer: PARCEL1

Date Received: 10/18/23

Attention:

PO Number J310000600-019

Client Project ID J310000600

Lab ID: B291104001	Sample ID: PM051623-25	FIELDQC	Media: 8X10 PREWEIGHED GLASS	Sample Date: 10/09/2023 8:00 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	0 L	1000 ug			2800 ug	--

Lab ID: B291104002	Sample ID: TSP051923-06	FIELDQC	Media: 8X10 PREWEIGHED GLASS	Sample Date: 10/09/2023 8:00 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	0 L	1000 ug			1900 ug	--
Lead	40 CFR Part 50 Appendix G	10/23/23	0 L	14 ug			< 14 ug	--
Manganese	40 CFR Part 50 Appendix G	10/23/23	0 L	98 ug			< 98 ug	--

Lab ID: B291104003	Sample ID: PM051923-07	MSC01	Media: 8X10 PREWEIGHED GLASS	Sample Date: 10/10/2023 6:47 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1600720 L	1000 ug			10700 ug	7 ug/M3

Lab ID: B291104004	Sample ID: TSP051923-08	MSC01	Media: 8X10 PREWEIGHED GLASS	Sample Date: 10/10/2023 6:47 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
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**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B291104004	Sample ID:	TSP051923-08	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/10/2023 6:47 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1601090 L	1000 ug			21400 ug	13 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1601090 L	14 ug			< 14 ug	< 0.009 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1601090 L	98 ug			< 98 ug	< 0.061 ug/M3

Lab ID:	B291104005	Sample ID:	PM051923-09	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/10/2023 6:55 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1610130 L	1000 ug			20600 ug	13 ug/M3

Lab ID:	B291104006	Sample ID:	TSP051923-10	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/10/2023 6:55 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1698840 L	1000 ug			25000 ug	15 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1698840 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1698840 L	98 ug			< 98 ug	< 0.058 ug/M3

Lab ID:	B291104007	Sample ID:	PM072823-01	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/11/2023 6:54 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1648790 L	1000 ug			40200 ug	24 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

Lab ID:	B291104008	Sample ID:	TSP072823-02	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/11/2023 6:54 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1644700 L	1000 ug			21000 ug	13 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1644700 L	14 ug			< 14 ug	< 0.009 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1644700 L	98 ug			< 98 ug	< 0.06 ug/M3

Lab ID:	B291104009	Sample ID:	PM072823-03	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/11/2023 7:03 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1659430 L	1000 ug			55100 ug	33 ug/M3

Lab ID:	B291104010	Sample ID:	TSP072823-04	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/11/2023 7:03 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1762080 L	1000 ug			29300 ug	17 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1762080 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1762080 L	98 ug			< 98 ug	< 0.056 ug/M3

Lab ID:	B291104011	Sample ID:	PM072823-05	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 6:50 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1633440 L	1000 ug			32200 ug	20 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

Lab ID:	B291104012	Sample ID:	TSP072823-06	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 6:50 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1626580 L	1000 ug			67200 ug	41 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1626580 L	14 ug			< 14 ug	< 0.009 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1626580 L	98 ug			< 98 ug	< 0.06 ug/M3

Lab ID:	B291104013	Sample ID:	PM072823-07	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 7:01 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	1620220 L	1000 ug			36500 ug	23 ug/M3

Lab ID:	B291104014	Sample ID:	TSP072823-08	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 7:01 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	1699400 L	1000 ug			58500 ug	34 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	1699400 L	14 ug			< 14 ug	< 0.008 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	1699400 L	98 ug			< 98 ug	< 0.058 ug/M3

Lab ID:	B291104015	Sample ID:	PM072823-09	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 3:10 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	570340 L	1000 ug			10500 ug	18 ug/M3



## Built Environment Testing Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

### Final Report

Lab ID:	B291104016	Sample ID:	TSP072823-10	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 3:10 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	569080 L	1000 ug			26000 ug	46 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	569080 L	14 ug			< 14 ug	< 0.025 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	569080 L	98 ug			< 98 ug	< 0.172 ug/M3

Lab ID:	B291104017	Sample ID:	PM072823-11	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 2:54 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/19/23	539400 L	1000 ug			9100 ug	17 ug/M3

Lab ID:	B291104018	Sample ID:	TSP072823-12	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/12/2023 2:54 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/19/23	574500 L	1000 ug			16300 ug	28 ug/M3
Lead	40 CFR Part 50 Appendix G	10/23/23	574500 L	14 ug			< 14 ug	< 0.024 ug/M3
Manganese	40 CFR Part 50 Appendix G	10/23/23	574500 L	98 ug			< 98 ug	< 0.171 ug/M3



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

### General Laboratory Comments

#### Abbreviations:

ug = micrograms; mg=milligrams; g = grams, ppm=parts per million (volume), ppb = parts per billion (volume), mg/M3=milligrams per cubic meter of air, ug/M3=micrograms per cubic meter of air; Min=minutes, Qual=Qualifiers

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **[REDACTED] 101723AIRC**

  
**B291104**

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA				Event: <b>Parcel C Air monitoring</b>	
Project Number: J310000600				POC: [REDACTED]					
WBS Code: J310000600				Ship to: 10329 Stony Run Lane, Ashland, VA 23005					
<p>Comments:</p> <p>Equipment:</p> <p>Event: Parcel C Air Monitoring</p>				<p>Analytical Test Method</p> <p>CAAIR - Air PM10</p> <p>N0500 - Air TSP</p> <p>SW6010B - Air Pb Mn</p>	<p>Code</p> <p>A</p> <p>AQ</p>	<p>Matrix</p> <p>Air</p> <p>Air Quality Control Matrix</p>			
						<p>Code</p> <p>Container/Preservative</p> <p>1</p> <p>1x 250-mL Plastic, 4 Degrees C</p> <p>1</p> <p>1x Envelope, None</p>			

Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	Shipping Date / Carrier / Airbill Number		
[REDACTED]			10/17/23	1300	FEDEX			10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140		
[REDACTED]					[REDACTED]			10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition		
[REDACTED]					[REDACTED]					10/18/23 Custody Seal Verified		
[REDACTED]					[REDACTED]					14:55 Seal Verified		

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # 101723AIRC



B291104

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
			[REDACTED]	10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]	[REDACTED]	[REDACTED]	10/18/23 Custody 14:55 Seal Intact

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

**COC #**  **101723AIRC**

B291104

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
				10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
						10/18/23 Custody 14:55 Seal intact

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # 101723AIRC



B291104

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
				10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
						10/18/23 Custody 14:55 Seal intact

COC # 101723AIRC



  
 B291104

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Event: Parcel C Air Monitoring	
Project Number: J310000600					
WBS Code: J310000600					

	Sample ID	Matrix	Date	Time	Comments
1	PM051623-25	AQ	10/09/2023	0800	
2	TSP051923-06	AQ	10/09/2023	0800	
3	PM051923-07	A	10/10/2023	0647	VOLUME (M3): 1600.72
4	TSP051923-08	A	10/10/2023	0647	VOLUME (M3): 1601.09
5	PM051923-09	A	10/10/2023	0655	VOLUME (M3): 1610.13
6	TSP051923-10	A	10/10/2023	0655	VOLUME (M3): 1698.84
7	PM072823-01	A	10/11/2023	0654	VOLUME (M3): 1648.79
8	TSP072823-02	A	10/11/2023	0654	VOLUME (M3): 1644.70
9	PM072823-03	A	10/11/2023	0703	VOLUME (M3): 1659.43
10	TSP072823-04	A	10/11/2023	0703	VOLUME (M3): 1762.08
11	PM072823-05	A	10/12/2023	0650	VOLUME (M3): 1633.44
12	TSP072823-06	A	10/12/2023	0650	VOLUME (M3): 1626.58
13	PM072823-07	A	10/12/2023	0701	VOLUME (M3): 1620.22
14	TSP072823-08	A	10/12/2023	0701	VOLUME (M3): 1699.40
15	PM072823-09	A	10/12/2023	1510	VOLUME (M3): 570.34
16	TSP072823-10	A	10/12/2023	1510	VOLUME (M3): 569.08
17	PM072823-11	A	10/12/2023	1454	VOLUME (M3): 539.40
18	TSP072823-12	A	10/12/2023	1454	VOLUME (M3): 574.50



B291104

Sample ID	Cubic Meter	Volume (L)
PM051923-07	1600.72	1600720
TSP051923-08	1601.09	1601090
PM051923-09	1610.13	1610130
TSP051923-10	1698.84	1698840
PM072823-01	1648.79	1648790
TSP072823-02	1644.7	1644700
PM072823-03	1659.43	1659430
TSP072823-04	1762.08	1762080
PM072823-05	1633.44	1633440
TSP072823-06	1626.58	1626580
PM072823-07	1620.22	1620220
TSP072823-08	1699.4	1699400
PM072823-09	570.34	570340
TSP072823-10	569.08	569080
PM072823-11	539.4	539400
TSP072823-12	574.5	574500

**From:** [REDACTED]  
**Sent:** Wednesday, October 18, 2023 3:53 PM  
**To:** [REDACTED]  
**Cc:** Analytics - NoReply; [REDACTED]  
**Subject:** RE: Questions about samples; B291-104

You don't often get email from [REDACTED] [Learn why this is important](#)

**CAUTION: EXTERNAL EMAIL** - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

[REDACTED]  
COC's attached with revised ID's on page 2. Thank you for bringing this to our attention.

Thanks

[REDACTED]  
Chemist II  
GES | MBE

[REDACTED]  
[GES-AIS.COM](#)

**From:** [REDACTED]  
**Sent:** Wednesday, October 18, 2023 12:38 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Questions about samples; B291-104

**⚠ CAUTION: EXTERNAL SENDER** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.  
Good Afternoon,

I am reaching out in regards to the project attached above. For page 2 of the COC, all of the samples begin with "PM" instead of alternating PM and TSP. The physical samples are correct and the cubic meter sheet is also correct. Can you please provide a revised COC for this project? Please reply at your earliest convenience.

All the best,

[REDACTED]  
Receiving Supervisor

Eurofins Built Environment Testing Analytics  
10329 Stony Run Lane  
Ashland, VA 23005

[REDACTED]  
Follow Us! [Facebook](#) | [LinkedIn](#)

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W. Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **101723AIRC**

  
**B291104**

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA				Event: Parcel C Air Monitoring																	
Project Number: J310000600				POC [REDACTED]																					
WBS Code: J310000600				Ship to: 10329 Stony Run Lane, Ashland, VA 23005																					
<p><b>Comments:</b></p> <p>[REDACTED]</p>				<p>Analytical Test Method</p> <table border="1"> <tr> <td>CAAIR - Air PM10</td> <td>N0500 - Air TSP</td> <td>SW6010B - Air Pb Mn</td> <td></td> </tr> </table> <p style="text-align: right;">10/17/23</p>				CAAIR - Air PM10	N0500 - Air TSP	SW6010B - Air Pb Mn		<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> </tr> </table> <table border="1"> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> <tr> <td>1</td> <td>1x Envelope, None</td> </tr> </table>		Code	Matrix	A	Air	AQ	Air Quality Control Matrix	Code	Container/Preservative	1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None
CAAIR - Air PM10	N0500 - Air TSP	SW6010B - Air Pb Mn																							
Code	Matrix																								
A	Air																								
AQ	Air Quality Control Matrix																								
Code	Container/Preservative																								
1	1x 250-mL Plastic, 4 Degrees C																								
1	1x Envelope, None																								
<b>Equipment:</b>																									
Event: Parcel C Air Monitoring				1	1	1																			
	Sample ID	Matrix	Date	Time	Samp Init.			Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments													
1	PM051923-25	AQ	10/09/2023	0800	X			FIELDQC	FB1	0.00	0.00	1													
2	TSP051923-06	AQ	10/09/2023	0800	X	X		FIELDQC	FB1	0.00	0.00	1													
3	PM051923-07	A	10/10/2023	0647	X			MSC01	N1	0.00	0.00	1													
4	TSP051923-08	A	10/10/2023	0647	X	X		MSC01	N1	0.00	0.00	1													
5	PM051923-09	A	10/10/2023	0655	X			MSC02	N1	0.00	0.00	1													
6	TSP051923-10	A	10/10/2023	0655	X	X		MSC02	N1	0.00	0.00	1													
Turnaround Time: 5 days																									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
				10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
						10/18/23 Custody 14:55 Seal Intact

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **101723AIRC**

B291104

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA				Event: Parcel C Air Monitoring									
Project Number: J310000600				POC: [REDACTED]													
WBS Code: J310000600				Ship to: 10329 Stony Run Lane, Ashland, VA 23005													
<p><b>Comments:</b></p> <p>[REDACTED]</p>				<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> <tr> <td>1</td> <td>1x Envelope, None</td> </tr> </table>				Code	Matrix	A	Air	Code	Container/Preservative	1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None
Code	Matrix																
A	Air																
Code	Container/Preservative																
1	1x 250-mL Plastic, 4 Degrees C																
1	1x Envelope, None																
<p><b>Equipment:</b></p> <p>[REDACTED]</p>																	
<p><b>Event: Parcel C Air Monitoring</b></p> <p>[REDACTED]</p>				<table border="1"> <tr> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				1	1	1							
1	1	1															
	Sample ID	Matrix	Date	Time	Samp Init.			Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments					
10/18/23	PM072823-01	A	10/11/2023	0654	X			MSC01	N1	0.00	0.00	1 VOLUME (M3):					
10/18/23	PM072823-02- TSP072823-02	A	10/11/2023	0654	X	X		MSC01	N1	0.00	0.00	1 VOLUME (M3):					
10/18/23	PM072823-03	A	10/11/2023	0703	X			MSC02	N1	0.00	0.00	1 VOLUME (M3):					
10/18/23	PM072823-04_TSP072823-04	A	10/11/2023	0703	X	X		MSC02	N1	0.00	0.00	1 VOLUME (M3):					
<b>Turnaround Time: 5 days</b>																	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
			[REDACTED]	10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]			10/18/23 Custody
			[REDACTED]			14:55 Seal Intact

**CHAIN-OF-CUSTODY  
RECORD**

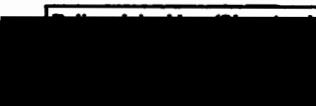
Gibane Federal

1501 W Mountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **101723AIRC**

  
**B291104**

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA				Event: Parcel C Air Monitoring										
Project Number: J310000600				POC														
WBS Code: J310000600				Ship to: 10329 Stony Run Lane, Ashland, VA 23005														
<p><b>Comments:</b></p> <p><b>Equipment:</b></p> <p><b>Event: Parcel C Air Monitoring</b></p>				<p>Analytical Test Method</p> <table border="1"> <tr><td>CAAIR - Air PM10</td><td>1</td></tr> <tr><td>NO500 - Air TSP</td><td>1</td></tr> <tr><td>SW8010B - Air Pb Mn</td><td>1</td></tr> </table>	CAAIR - Air PM10	1	NO500 - Air TSP	1	SW8010B - Air Pb Mn	1	<p>Code Matrix</p> <table border="1"> <tr><td>A</td><td>Air</td></tr> </table> <p>Code Container/Preservative</p> <table border="1"> <tr><td>1</td><td>1x 250-mL Plastic, 4 Degrees C</td></tr> <tr><td>1</td><td>1x Envelope, None</td></tr> </table>	A	Air	1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None	
CAAIR - Air PM10	1																	
NO500 - Air TSP	1																	
SW8010B - Air Pb Mn	1																	
A	Air																	
1	1x 250-mL Plastic, 4 Degrees C																	
1	1x Envelope, None																	

			Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
			10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
Received by Laboratory: (Signature, Date, Time) & condition								
<i>10/18/23 Custody 14:55 Seal intact</i>								

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # **[REDACTED] 101723AIRC**

**[REDACTED]**  
**B291104**

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation				Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA				Event: Parcel C Air Monitoring											
Project Number: J310000600				POC [REDACTED]															
WBS Code: J310000600				Ship to: 10329 Stony Run Lane, Ashland, VA 23005															
Comments:								<table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> <tr> <td>1</td> <td>1x Envelope, None</td> </tr> </table>	Code	Matrix	A	Air	Code	Container/Preservative	1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None	
									Code	Matrix									
A	Air																		
Code	Container/Preservative																		
1	1x 250-mL Plastic, 4 Degrees C																		
1	1x Envelope, None																		
Equipment:																			
Event: Parcel C Air Monitoring				1	1	1													
Sample ID	Matrix	Date	Time	Samp Init.				Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments						
										Top - Bottom									
1 PM072823-09	A	10/12/2023	1510	X				MSC01	N1	0.00	0.00	1	VOLUME (M3):						
2 TSP072823-10	A	10/12/2023	1510	X X				MSC01	N1	0.00	0.00	1	VOLUME (M3):						
3 PM072823-11	A	10/12/2023	1454	X				MSC02	N1	0.00	0.00	1	VOLUME (M3):						
4 TSP072823-12	A	10/12/2023	1454	X X				MSC02	N1	0.00	0.00	1	VOLUME (M3):						
Turnaround Time: 5 days																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/17/23	1300	FEDEX	10/17/23	1300	Shipping Date: 10/17/2023 / FEDEX / 7735 5878 2140
			[REDACTED]	10/18/23	14:55	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]			10/18/23 Custody 14:55 Sent to Lab

COC # [REDACTED] 101723AIRC



B291104

A standard barcode graphic followed by the string "B291104" in a black sans-serif font.

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation			Event: Parcel C Air Monitoring			
Project Number: J310000600						
WBS Code: J310000600						

	Sample ID	Matrix	Date	Time	Comments
1	PM051923-25	AQ	10/09/2023	0800	
2	TSP051923-06	AQ	10/09/2023	0800	
3	PM051923-07	A	10/10/2023	0647	VOLUME (M3): 1600.72
4	TSP051923-08	A	10/10/2023	0647	VOLUME (M3): 1601.09
5	PM051923-09	A	10/10/2023	0655	VOLUME (M3): 1610.13
6	TSP051923-10	A	10/10/2023	0655	VOLUME (M3): 1698.84
7	PM072823-01	A	10/11/2023	0654	VOLUME (M3): 1648.79
8	TSP072823-02	A	10/11/2023	0654	VOLUME (M3): 1644.70
9	PM072823-03	A	10/11/2023	0703	VOLUME (M3): 1659.43
10	TSP072823-04	A	10/11/2023	0703	VOLUME (M3): 1762.08
11	PM072823-05	A	10/12/2023	0650	VOLUME (M3): 1633.44
12	TSP072823-06	A	10/12/2023	0650	VOLUME (M3): 1626.58
13	PM072823-07	A	10/12/2023	0701	VOLUME (M3): 1620.22
14	TSP072823-08	A	10/12/2023	0701	VOLUME (M3): 1699.40
15	PM072823-09	A	10/12/2023	1510	VOLUME (M3): 570.34
16	TSP072823-10	A	10/12/2023	1510	VOLUME (M3): 569.08
17	PM072823-11	A	10/12/2023	1454	VOLUME (M3): 539.40
18	TSP072823-12	A	10/12/2023	1454	VOLUME (M3): 574.50



B291104

Sample ID	Cubic Meter	Volume (L)
PM051923-07	1600.72	1600720
TSP051923-08	1601.09	1601090
PM051923-09	1610.13	1610130
TSP051923-10	1698.84	1698840
PM072823-01	1648.79	1648790
TSP072823-02	1644.7	1644700
PM072823-03	1659.43	1659430
TSP072823-04	1762.08	1762080
PM072823-05	1633.44	1633440
TSP072823-06	1626.58	1626580
PM072823-07	1620.22	1620220
TSP072823-08	1699.4	1699400
PM072823-09	570.34	570340
TSP072823-10	569.08	569080
PM072823-11	539.4	539400
TSP072823-12	574.5	574500



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA-LAP, LLC Accreditation ID 100531

## Level 2 QA/QC Summary Report

Work Order #: B291104

Report Date: 10/24/2023

**Batch ID:** ICP231019C      **Analysis Date:** 10/23/2023  
**Media::** 8X10PW GFF      **Preparation Date** 10/20/2023

### Blank Spike Results

QC ID	Parameter	Percent Recovery				
		LCS	LCSD	Acceptance	RPD	Limit
LCS ICP231019C	Lead	103	100	75-125	2.7	20
LCS ICP231019C	Manganese	101	99	75-125	2.3	20

### Method Blank Results

QC ID	Parameter	Result	RL	Units	
				ug	ug
LMB ICP231019C	Lead	< 14	14		
LMB ICP231019C	Manganese	< 98	98		



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

November 3, 2023

[REDACTED]  
AIS-GES, LLC

1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

**Laboratory Workorder ID: B298056**

Client Project ID: J310000600 PARCEL C HUNTERS PT

Received: October 25, 2023

Reported: October 31, 2023

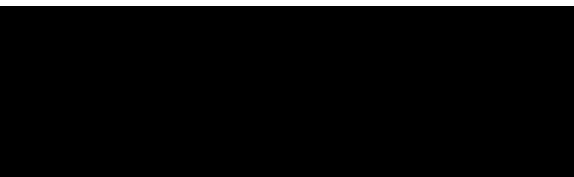
Amended: November 3, 2023

Attached are the results we obtained on the analysis of your samples submitted to Analytics. Any Chains-of-Custody associated by this sample group are enclosed. Air concentrations are calculated as a convenience to the client and the overall accuracy of this result depends on both the accuracy of the air volume and the amount found by analysis. Theoretical air volumes for passive monitors are calculated using the sampling time submitted and the manufacturer's listed sampling rate for each compound. Results provided in this report relate only to the items tested.

For blanks and non-detects the results indicated with a '<' value represents the reporting limit for the analysis. Unless otherwise noted results are not corrected for blank values.

Unless the signature of the appropriate manager(s) appears on this report, this report should be considered PRELIMINARY and is subject to change.

We appreciate your confidence in allowing Analytics to be your testing laboratory. Any questions regarding this report can be addressed by calling our customer services department at (800) 888-8061.



[REDACTED], CIH  
Technical Director

Enclosures



## Built Environment Testing Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

### Final Report

AIS-GES, LLC  
1501 W. FOUNTAINHEAD PKWY,  
#550  
TEMPE, AZ 85282

Customer: PARCEL C1  
Attention: [REDACTED]

Date Received: 10/25/23

PO Number J310000600

Client Project ID J310000600 PARCEL C  
HUNTERS PT

Lab ID:	B298056001	Sample ID:	PM072823-13	FIELDQC	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/16/2023 8:00 AM
---------	------------	------------	-------------	---------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	0 L	1000 ug			< 1000 ug	--

Lab ID:	B298056002	Sample ID:	TPS072823-14	FIELDQC	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/16/2023 8:00 AM
---------	------------	------------	--------------	---------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	0 L	1000 ug			< 1000 ug	--
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	0 L	14 ug			< 14 ug	--
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	0 L	98 ug			< 98 ug	--

Lab ID:	B298056003	Sample ID:	PM072823-15	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/17/2023 6:50 AM
---------	------------	------------	-------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1614180 L	1000 ug			13500 ug	8 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B298056004	Sample ID:	TSP072823-16	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/17/2023 6:50 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1644790 L	1000 ug			39700 ug	24 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1644790 L	14 ug			< 14 ug	< 0.0085 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1644790 L	98 ug			< 98 ug	< 0.0596 ug/M3

Lab ID:	B298056005	Sample ID:	PM072823-17	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/17/2023 6:59 AM
---------	------------	------------	-------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1636300 L	1000 ug			16000 ug	10 ug/M3

Lab ID:	B298056006	Sample ID:	TSP072823-18	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/17/2023 6:59 AM
---------	------------	------------	--------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1734790 L	1000 ug			28700 ug	17 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1734790 L	14 ug			< 14 ug	< 0.0081 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1734790 L	98 ug			< 98 ug	< 0.0565 ug/M3

Lab ID:	B298056007	Sample ID:	PM072823-19	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:49 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
---------	--------	---------------	--------	-----------------	-------	------	-------	---------------



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B298056007	Sample ID:	PM072823-19	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:49 AM
---------	------------	------------	-------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1661860 L	1000 ug			11000 ug	7 ug/M3

Lab ID:	B298056008	Sample ID:	TSP072823-20	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:49 AM
---------	------------	------------	--------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1639750 L	1000 ug			34700 ug	21 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1639750 L	14 ug			< 14 ug	< 0.0085 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1639750 L	98 ug			< 98 ug	< 0.0598 ug/M3

Lab ID:	B298056009	Sample ID:	PM072823-21	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:58 AM
---------	------------	------------	-------------	-------	--------	-----------------------	--------------	--------------------

Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1634440 L	1000 ug			14200 ug	9 ug/M3

Lab ID:	B298056010	Sample ID:	TSP072823-22	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:58 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1731360 L	1000 ug			30100 ug	17 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1731360 L	14 ug			< 14 ug	< 0.0081 ug/M3



## Built Environment Testing Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005  
Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

### Final Report

Lab ID:	B298056010	Sample ID:	TSP072823-22	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/18/2023 6:58 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1731360 L	98 ug			< 98 ug	< 0.0566 ug/M3

Lab ID:	B298056011	Sample ID:	PM072823-23	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 7:06 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1676450 L	1000 ug			42000 ug	25 ug/M3

Lab ID:	B298056012	Sample ID:	TSP072823-24	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 7:06 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1675900 L	1000 ug			84800 ug	51 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1675900 L	14 ug			< 14 ug	< 0.0084 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1675900 L	98 ug			< 98 ug	< 0.0585 ug/M3

Lab ID:	B298056013	Sample ID:	PM072823-25	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 7:14 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	1668630 L	1000 ug			46600 ug	28 ug/M3



**Built Environment Testing  
Analytics**

Eurofins Analytics, LLC  
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AIHA LAP, LLC Accreditation ID 100531

**Final Report**

Lab ID:	B298056014	Sample ID:	TSP072823-26	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 7:14 AM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	1768440 L	1000 ug			82900 ug	47 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	1768440 L	14 ug			< 14 ug	< 0.0079 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	1768440 L	98 ug			< 98 ug	< 0.0554 ug/M3

Lab ID:	B298056015	Sample ID:	PM072823-27	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 2:51 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	510000 L	1000 ug			10000 ug	20 ug/M3

Lab ID:	B298056016	Sample ID:	TSP072823-28	MSC01	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 2:51 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	508800 L	1000 ug			42400 ug	83 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	508800 L	14 ug			< 14 ug	< 0.0275 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	508800 L	98 ug			< 98 ug	< 0.1926 ug/M3

Lab ID:	B298056017	Sample ID:	PM072823-29	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 2:33 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
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## Final Report

Lab ID:	B298056017	Sample ID:	PM072823-29	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 2:33 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
PM10 Particulates	40CFR50 App.J	10/26/23	505470 L	1000 ug			20700 ug	41 ug/M3

Lab ID:	B298056018	Sample ID:	TSP072823-30	MSC02	Media:	8X10 PREWEIGHED GLASS	Sample Date:	10/19/2023 2:33 PM
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Analyte	Method	Analysis Date	Volume	Reporting Limit	Front	Rear	Total	Concentration
Total Suspended Particulates	40CFR50 App.B	10/26/23	536050 L	1000 ug			38900 ug	73 ug/M3
Lead	40CFR50App.G Mod./EPA 6010B	10/30/23	536050 L	14 ug			< 14 ug	< 0.0261 ug/M3
Manganese	40CFR50App.G Mod./EPA 6010B	10/30/23	536050 L	98 ug			< 98 ug	< 0.1828 ug/M3

Missed Units entered (ug/M3).



Built Environment Testing  
Analytics

Eurofins Analytics, LLC  
10329 Stony Run Lane  
Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002  
AIHA LAP, LLC Accreditation ID 100531

## Final Report

### General Laboratory Comments

#### Abbreviations:

ug = micrograms; mg=milligrams; g = grams, ppm=parts per million (volume), ppb = parts per billion (volume), mg/M3=milligrams per cubic meter of air, ug/M3=micrograms per cubic meter of air; Min=minutes, Qual=Qualifiers

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # [REDACTED] 102423AIRC



B298056

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:		Code	Matrix											
A		Air												
AQ		Air Quality Control Matrix												
Code		Container/Preservative												
1	1x 250-mL Plastic, 4 Degrees C													
1	1x Envelope, None													
Equipment:														
Event: Parcel C Air Monitoring														
Sample ID	Matrix	Date	Time	Samp Init.					Location ID	Sample Type	Depth (ft bgs) Top - Bottom	Cooler	Comments	
1 PM072823-13	AQ	10/16/2023	0800	X					FIELDQC	FB1	0.00 0.00	1		
2 TSP072823-14	AQ	10/16/2023	0800		X X				FIELDQC	FB1	0.00 0.00	1		
3 PM072823-15	A	10/17/2023	0650	X				X	MSC01	N1	0.00 0.00	1	VOLUME (M3):	
4 TSP072823-16	A	10/17/2023	0650		X X			X	MSC01	N1	0.00 0.00	1	VOLUME (M3):	
5 PM072823-17	A	10/17/2023	0659	X					MSC02	N1	0.00 0.00	1	VOLUME (M3):	
6 TSP072823-18	A	10/17/2023	0659		X X				MSC02	N1	0.00 0.00	1	VOLUME (M3):	
Turnaround Time: 5 days														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date: 10/24/2023 / FEDEX / 7736 6627 7630
			[REDACTED]	10/25/23	1400	Received by Laboratory: (Signature, Date, Time) & condition

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # █ 102423AIRC



B298056

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC: █	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:	 <span style="font-size: small;">10/24/23</span>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</td> </tr> <tr> <td colspan="2">Container/Preservative</td> </tr> <tr> <td>1</td> <td>1x 250-mL Plastic, 4 Degrees C</td> </tr> <tr> <td>1</td> <td>1x Envelope, None</td> </tr> </table>	Code	Matrix	A	Air	Container/Preservative		1	1x 250-mL Plastic, 4 Degrees C	1	1x Envelope, None					
Code			Matrix														
A	Air																
Container/Preservative																	
1	1x 250-mL Plastic, 4 Degrees C																
1	1x Envelope, None																
Equipment:																	
Event: Parcel C Air Monitoring					1 1 1												
	Sample ID	Matrix	Date	Time	Samp Init.						Location ID	Sample Type	Depth (ft bgs)			Comments	
	PM072823-19	A	10/18/2023	0649	 <span style="font-size: small;">10/24/23</span>	X					MSC01	N1	0.00	0.00	1	VOLUME (M3):	
	TSP072823-20	A	10/18/2023	0649		X X						MSC01	N1	0.00	0.00	1	VOLUME (M3):
	PM072823-21	A	10/18/2023	0658		X						MSC02	N1	0.00	0.00	1	VOLUME (M3):
	TSP072823-22	A	10/18/2023	0658		X X						MSC02	N1	0.00	0.00	1	VOLUME (M3):
Turnaround Time: 5 days																	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
██████████	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date: 10/24/2023 / FEDEX / 7736 6627 7630
			██████████	10/25/23	1406	Received by Laboratory: (Signature, Date, Time) & condition
			██████████	10/25/23	1406	10/25/23 Custody seal intact ██████████

## **CHAIN-OF-CUSTODY RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # ■■■■■102423AIRC



Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC: [REDACTED]	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date: 10/24/2023 / FEDEX / 7736 6627 7630
			[REDACTED]	10/25/23	1406	
						Received by Laboratory: (Signature, Date, Time) & condition
						10/25/23 CUSTODY seal INTACT

**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal

1501 W Fountainhead Parkway, Suite 550, Tempe, Arizona 85282

COC # █ 102423AIRC



B298056

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation	Laboratory: EUROFINS BUILT ENVIRONMENT TESTING ANALYTICS, ASHLAND, VA	Event: Parcel C Air Monitoring
Project Number: J310000600	POC:	
WBS Code: J310000600	Ship to: 10329 Stony Run Lane, Ashland, VA 23005	

Comments:	Code   Matrix								
	A   Air								
Equipment:	Code   Container/Preservative								
	1   1x 250-mL Plastic, 4 Degrees C								
	1   1x Envelope, None								
Event: Parcel C Air Monitoring	1   1   1								
Sample ID	Matrix	Date	Time	Samp Init.	Location ID	Sample Type	Depth (ft bgs)	Cooler	Comments
1 PM072823-27	A	10/19/2023	1451	X	MSC01	N1	0.00   0.00	1	VOLUME (M3):
2 TSP072823-28	A	10/19/2023	1451	X X	MSC01	N1	0.00   0.00	1	VOLUME (M3):
3 PM072823-29	A	10/19/2023	1433	X	MSC02	N1	0.00   0.00	1	VOLUME (M3):
4 TSP072823-30	A	10/19/2023	1433	X X	MSC02	N1	0.00   0.00	1	VOLUME (M3):
Turnaround Time: 5 days									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[REDACTED]	10/24/23	1300	FEDEX	10/24/23	1300	Shipping Date: 10/24/2023 / FEDEX / 7736 6627 7630
			[REDACTED]	10/25/23	1406	Received by Laboratory: (Signature, Date, Time) & condition
			[REDACTED]			10/25/23 CUSTODY SEAL INTACT [REDACTED]

COC # [REDACTED] 102423AIRC

B298056

Project Name: Hunters Point Shipyard, Parcel C Removal Site				 GES <small>AIR MONITORING INDUSTRIAL COMPANY</small>	
Project Number: J310000600					
WBS Code: J310000600					
Event: Parcel C Air Monitoring					
	Sample ID	Matrix	Date	Time	Comments
1	PM072823-13	AQ	10/16/2023	0800	
2	TSP072823-14	AQ	10/16/2023	0800	
3	PM072823-15	A	10/17/2023	0650	VOLUME (M3): 1614.18
4	TSP072823-16	A	10/17/2023	0650	VOLUME (M3): 1644.79
5	PM072823-17	A	10/17/2023	0659	VOLUME (M3): 1636.30
6	TSP072823-18	A	10/17/2023	0659	VOLUME (M3): 1734.79
7	PM072823-19	A	10/18/2023	0649	VOLUME (M3): 1661.86
8	TSP072823-20	A	10/18/2023	0649	VOLUME (M3): 1639.75
9	PM072823-21	A	10/18/2023	0658	VOLUME (M3): 1634.44
10	TSP072823-22	A	10/18/2023	0658	VOLUME (M3): 1731.36
11	PM072823-23	A	10/19/2023	0706	VOLUME (M3): 1676.45
12	TSP072823-24	A	10/19/2023	0706	VOLUME (M3): 1675.90
13	PM072823-25	A	10/19/2023	0714	VOLUME (M3): 1668.63
14	TSP072823-26	A	10/19/2023	0714	VOLUME (M3): 1768.44
15	PM072823-27	A	10/19/2023	1451	VOLUME (M3): 510.00
16	TSP072823-28	A	10/19/2023	1451	VOLUME (M3): 508.80
17	PM072823-29	A	10/19/2023	1433	VOLUME (M3): 505.47
18	TSP072823-30	A	10/19/2023	1433	VOLUME (M3): 536.05





Built Environment Testing  
Analytics

Eurofins Analytics, LLC

10329 Stony Run Lane

Ashland, Va 23005

Phone: (804) 365-3000 Fax: (804) 365-3002

AIHA-LAP, LLC Accreditation ID 100531

## Level 2 QA/QC Summary Report

Work Order #: B298056

Report Date: 11/3/2023

**Batch ID:** ICP231027A      **Analysis Date:** 10/30/2023

**Media::** 8X10PW GFF      **Preparation Date** 10/27/2023

### Blank Spike Results

QC ID	Parameter	Percent Recovery				
		LCS	LCSD	Acceptance	RPD	Limit
LCS ICP231027A	Lead	99	98	75-125	1.0	20
LCS ICP231027A	Manganese	99	100	75-125	0.1	20

### Method Blank Results

QC ID	Parameter	Result	RL	Units	
				ug	ug
LMB ICP231027A	Lead	< 14	14		
LMB ICP231027A	Manganese	< 98	98		