



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

**AIR MONITORING SUMMARY REPORT 07 FOR
PARCEL C
RADIOLOGICAL CONFIRMATION SAMPLING AND
SURVEY**

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

December 5th, 2022 through July 20th, 2023

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December 5th, 2022 through July 20th, 2023

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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 5th, 2022 to July 20th, 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 published at Weather Underground (www.wunderground.com).

Upwind/downwind station designations were assigned based on the prevalent wind direction. Atmospheric parameters were checked daily at 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 ³ | Cal/OSHA PEL (on-site workers) |
| PM10 ^a | 50 $\mu\text{g}/\text{m}^3$ | DTSC HERO developed action level (residents and public receptors) ^a |
| | 5,000 $\mu\text{g}/\text{m}^3$ | Cal/OSHA PEL (on-site workers) ^b |
| TSP | 0.5 mg/m ³ | Basewide HPNS Level selected to minimize overall permissible dust release from sites |
| Lead | 0.050 mg/m ³ | Cal/OSHA PEL (on-site workers) |
| Manganese | 0.200 mg/m ³ | 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) ^c |
| 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:

^a = 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.

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

^c = 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

4.0 Air Monitoring Action Levels

fibers/cm³ = fibers per cubic centimeter

HPNS = Hunters Point Naval Shipyard

mg/m³ = 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 and Bayview Manor - KCASANFR1775. **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 |

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/m³. 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/m³, however for informational purposes the results are also being compared to the DTSC HERO action level of 50 ug/m³. The delta was taken between the downwind and upwind PM10 filter results on 7/6/23 (304.64 ug/m³) 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.

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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.

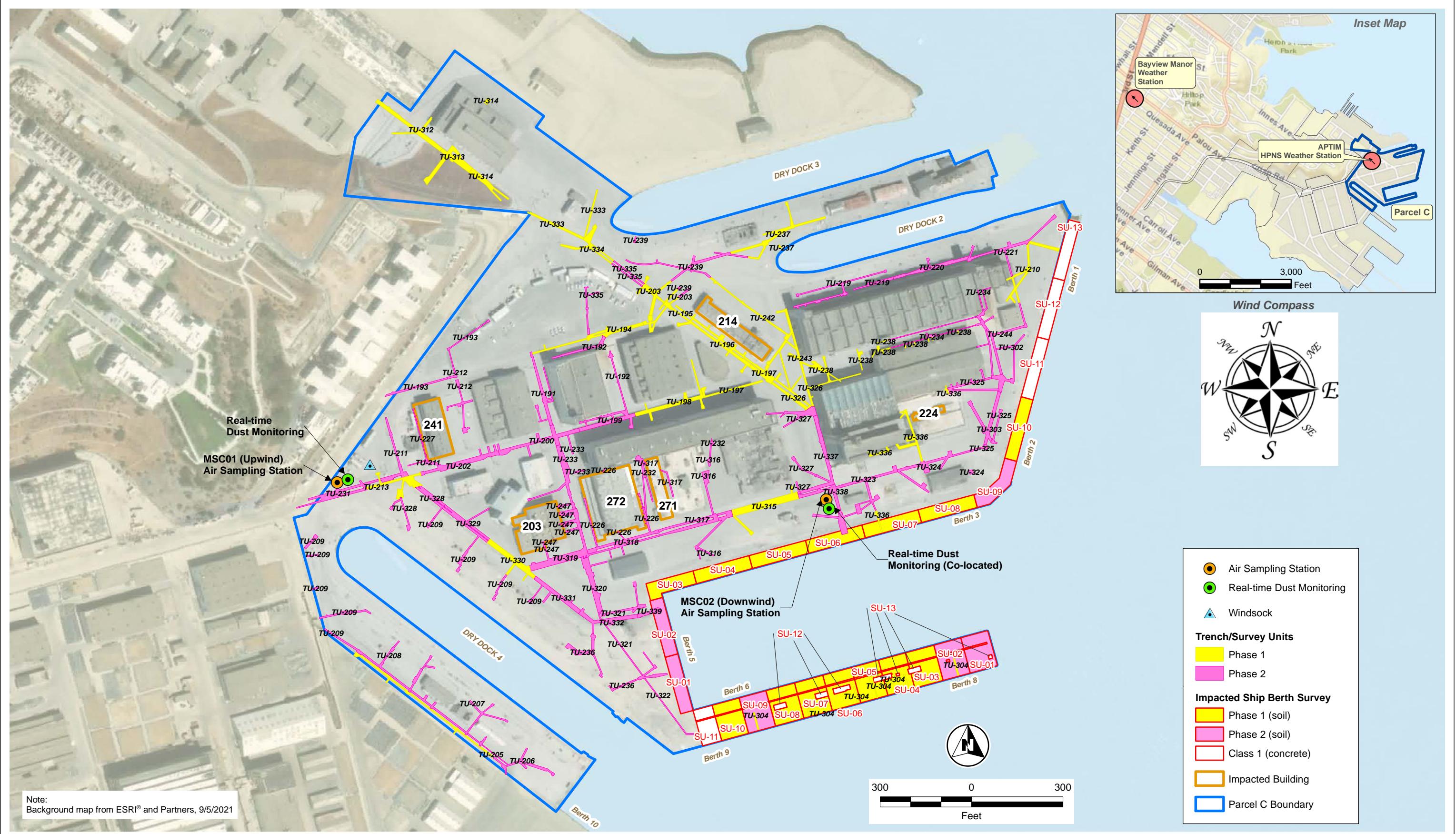
Gilbane, 2022. Final Parcel C Removal Site Evaluation Work Plan, Hunters Point Naval Shipyard, San Francisco, California. July

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

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

Attachment 1

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

| Start Date | Ambient Pressure (in Hg) | Ambient Temperature (°F) | Prevalent Wind Direction |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 12/6/2022 ¹ | 30.09 | 49.95 | ESE |
| 12/7/2022 ¹ | 30.25 | 49.27 | S |
| 12/8/2022 ¹ | 30.25 | 49.27 | SSE |
| 12/12/2022 ¹ | 30.01 | 46.32 | NNW |
| 12/13/2022 ¹ | 30.16 | 46.70 | SE |
| 12/14/2022 ¹ | 30.21 | 46.47 | NNE |
| 12/19/2022 ¹ | 30.30 | 44.40 | NNW |
| 12/20/2022 ¹ | 30.31 | 48.36 | E |
| 12/21/2022 ¹ | 30.20 | 50.77 | N |
| 01/17/2023 ¹ | 30.07 | 48.87 | NNE |
| 01/18/2023 ¹ | 30.16 | 49.90 | ESE |
| 01/19/2023 ¹ | 30.21 | 48.70 | NNW |
| 01/23/2023 ¹ | 30.20 | 53.48 | ENE |
| 01/24/2023 ¹ | 30.34 | 53.29 | ESE |
| 02/02/2023 ¹ | 30.23 | 50.22 | ESE |
| 02/06/2023 ¹ | 30.35 | 50.98 | E |
| 02/07/2023 ¹ | 30.34 | 51.78 | E |
| 02/08/2023 ¹ | 30.31 | 53.27 | E |
| 02/09/2023 ¹ | 30.27 | 55.79 | ENE |
| 02/13/2023 ¹ | 29.96 | 50.55 | WNW |
| 02/14/2023 ¹ | 30.09 | 47.83 | WNW |
| 02/15/2023 ¹ | 30.25 | 47.93 | NNW |
| 02/16/2023 ¹ | 30.24 | 48.58 | SE |
| 02/20/2023 ¹ | 30.05 | 54.52 | WSW |
| 02/21/2023 ¹ | 29.79 | 47.61 | WNW |
| 02/22/2023 ¹ | 29.82 | 43.07 | WNW |
| 02/23/2023 ¹ | 29.85 | 44.76 | SSW |
| 03/01/2023 ¹ | 30.01 | 48.32 | NNW |
| 03/02/2023 ¹ | 30.16 | 51.09 | ESE |
| 03/06/2023 ¹ | 30.16 | 46.84 | SSE |
| 03/07/2023 ¹ | 30.14 | 47.89 | SSW |
| 03/08/2023 ¹ | 30.14 | 47.45 | SE |
| 03/09/2023 ¹ | 29.97 | 47.73 | SE |
| 03/13/2023 ¹ | 29.96 | 57.83 | SSE |
| 03/15/2023 ¹ | 30.01 | 50.52 | WSW |
| 03/16/2023 ¹ | 30.08 | 52.34 | SE |
| 03/20/2023 ¹ | 29.77 | 49.75 | SW |
| 03/22/2023 ¹ | 30.00 | 51.79 | NW |
| 03/23/2023 ¹ | 30.25 | 51.43 | NW |
| 03/27/2023 ¹ | 30.10 | 51.34 | SSE |
| 03/30/2023 ¹ | 29.99 | 51.08 | E |
| 04/03/2023 ¹ | 30.15 | 47.46 | WNW |
| 04/04/2023 ¹ | 30.21 | 48.40 | W |
| 04/05/2023 ¹ | 30.18 | 49.79 | WSW |

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

| Start Date | Ambient Pressure (in Hg) | Ambient Temperature (°F) | Prevalent Wind Direction |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 04/06/2023 ¹ | 30.13 | 54.30 | ESE |
| 04/10/2023 ¹ | 30.15 | 55.99 | WSW |
| 04/11/2023 ² | 30.14 | 53.33 | WSW |
| 04/12/2023 ² | 30.00 | 52.13 | W |
| 04/13/2023 ² | 29.98 | 55.71 | NNE |
| 04/17/2023 ¹ | 30.03 | 50.96 | WNW |
| 04/18/2023 ¹ | 30.12 | 50.69 | WNW |
| 04/19/2023 ¹ | 30.25 | 52.08 | WNW |
| 04/20/2023 ¹ | 30.32 | 58.36 | SW |
| 04/24/2023 ¹ | 29.97 | 53.17 | WSW |
| 04/25/2023 ¹ | 29.95 | 55.21 | WSW |
| 04/26/2023 ¹ | 29.95 | 55.43 | W |
| 04/27/2023 ¹ | 29.94 | 64.51 | NW |
| 05/01/2023 ² | 29.88 | 52.10 | WSW |
| 05/02/2023 ² | 29.89 | 52.56 | ESE |
| 05/04/2023 ² | 29.97 | 55.34 | SW |
| 05/08/2023 ² | 30.18 | 57.51 | WSW |
| 05/09/2023 ² | 30.09 | 56.20 | W |
| 05/10/2023 ² | 30.17 | 54.81 | WSW |
| 05/11/2023 ² | 30.17 | 50.77 | SW |
| 05/15/2023 ¹ | 30.07 | 56.20 | W |
| 05/16/2023 ¹ | 29.99 | 55.57 | WSW |
| 05/17/2023 ² | 30.01 | 54.94 | WSW |
| 05/18/2023 ² | 30.05 | 54.90 | WSW |
| 05/22/2023 ¹ | 29.88 | 56.00 | SW |
| 05/23/2023 ¹ | 29.87 | 55.59 | SW |
| 05/24/2023 ¹ | 29.89 | 54.76 | SW |
| 05/25/2023 ¹ | 29.88 | 56.02 | SW |
| 05/30/2023 ¹ | 30.04 | 57.05 | SW |
| 05/31/2023 ¹ | 29.97 | 55.47 | SW |
| 06/01/2023 ¹ | 29.99 | 59.03 | WSW |
| 06/05/2023 ² | 29.89 | 60.10 | WSW |
| 06/06/2023 ² | 29.95 | 60.40 | SSW |
| 06/07/2023 ² | 30.07 | 60.30 | WSW |
| 06/08/2023 ² | 30.12 | 62.20 | W |
| 06/12/2023 ² | 30.09 | 59.73 | SW |
| 06/13/2023 ² | 30.08 | 57.89 | WSW |
| 06/14/2023 ² | 29.96 | 58.08 | WSW |
| 06/15/2023 ² | 29.99 | 60.50 | NNE |
| 06/19/2023 ² | 30.13 | 57.99 | W |
| 06/20/2023 ² | 30.18 | 58.41 | WSW |
| 06/21/2023 ² | 30.07 | 56.49 | WSW |
| 06/22/2023 ² | 30.03 | 60.34 | SW |
| 06/26/2023 ² | 30.06 | 55.39 | SW |

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

| Start Date | Ambient Pressure (in Hg) | Ambient Temperature (°F) | Prevalent Wind Direction |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 06/27/2023 ² | 30.00 | 54.37 | SW |
| 06/28/2023 ² | 30.02 | 54.54 | SW |
| 06/29/2023 ² | 30.04 | 57.98 | NE |
| 07/05/2023 ² | 30.03 | 59.48 | WSW |
| 07/06/2023 ² | 30.03 | 60.47 | WSW |
| 07/10/2023 ² | 30.05 | 55.93 | WSW |
| 07/11/2023 ² | 30.06 | 58.63 | WSW |
| 07/12/2023 ² | 30.09 | 56.44 | WSW |
| 07/13/2023 ² | 30.10 | 60.07 | WSW |
| 07/17/2023 ² | 29.96 | 63.50 | WSW |
| 07/18/2023 ² | 30.05 | 58.01 | WSW |
| 07/19/2023 ² | 30.10 | 58.10 | WSW |
| 07/20/2023 ² | 30.11 | 62.90 | W |

Notes:

¹Data collected using wunderground.com from Bayview Manor - KCASANFR1775

² Data collected using wunderground.com from APTIM HPNS - KCASANFR1504

°F = degree Fareheit

in Hg = inches of mercury

E = East

S = South

N = North

W = West

ATTACHMENT 2
ASBESTOS MONITORING RESULTS

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

Attachment 2

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Attachment 2: Asbestos Monitoring Results

| Sample, Date and Station Information | | | Sampler Run Information | | | Asbestos Fibers | | |
|--------------------------------------|------------------------------|--------------------|-------------------------|-----------------------|--------------------------------|-------------------|-----------------------------------------|---------------------|
| Sample ID | Sample End Date ¹ | Monitoring Station | Ave Flow Rate (l/min) | Duration of Run (min) | Total Air Volume Monitored (L) | Asbestos (fibers) | Conc Asbestos (fibers/cm ³) | Exceedance (Yes/No) |
| 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 ² | 1 | 3.3 | 382 | 1260 | 5.0 | < 0.002 | No |
| MSC02-120822 | 12/08/22 ² | 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 ² | 1 | 3.2 | 331 | 1059 | 6.5 | 0.003 | No |
| MSC02-011923 | 01/19/23 ² | 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 ² | 1 | 3.6 | 438 | 1576 | 10.0 | 0.003 | No |
| MSC02-020223 | 02/02/23 ² | 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 ² | 1 | 3.2 | 382 | 1222 | 9.5 | 0.004 | No |
| MSC02-020923 | 02/09/23 ² | 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 ² | 1 | 3.8 | 396 | 1504 | 10.5 | 0.003 | No |
| MSC02-021623 | 02/16/23 ² | 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 ² | 1 | 3.3 | 489 | 1613 | 7.0 | 0.002 | No |
| MSC02-022323 | 02/23/23 ² | 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 ² | 1 | 3.7 | 423 | 1565 | 16.5 | 0.005 | No |
| MSC02-030223 | 03/02/23 ² | 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 ¹ | Monitoring Station | Ave Flow Rate (l/min) | Duration of Run (min) | Total Air Volume Monitored (L) | Asbestos (fibers) | Conc Asbestos (fibers/cm ³) | Exceedance (Yes/No) |
| MSC01-030923 | 03/09/23 ² | 1 | 3.1 | 372 | 1153 | 12.5 | 0.005 | No |
| MSC02-030923 | 03/09/23 ² | 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 ² | 1 | 3.3 | 423 | 1395 | 8.0 | 0.003 | No |
| MSC02-031623 | 03/16/23 ² | 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 ² | 1 | 3.6 | 430 | 1539 | 10.0 | 0.003 | No |
| MSC02-032323 | 03/23/23 ² | 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 ² | 1 | 3.3 | 447 | 1564 | 10.0 | 0.003 | No |
| MSC02-033023 | 3/30/23 ² | 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 ² | 1 | 3.3 | 480 | 1584 | 10.5 | 0.003 | No |
| MSC02-040623 | 04/06/23 ² | 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 ² | 1 | 3.2 | 463 | 1481 | 20.0 | 0.007 | No |
| MSC02-041323 | 04/13/23 ² | 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 ² | 1 | 3.4 | 459 | 1560 | 14.5 | 0.005 | No |
| MSC02-042023 | 04/20/23 ² | 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 ² | 1 | 3.1 | 455 | 1410 | 19.0 | 0.007 | No |
| MSC02-042723 | 04/27/23 ² | 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 ² | 1 | 3.1 | 507 | 1571 | 22.0 | 0.007 | No |
| MSC02-050423 | 05/04/23 ² | 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 ² | 1 | 3.1 | 461 | 1429 | 23.0 | 0.008 | No |
| MSC02-051123 | 05/11/23 ² | 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 ¹ | Monitoring Station | Ave Flow Rate (l/min) | Duration of Run (min) | Total Air Volume Monitored (L) | Asbestos (fibers) | Conc Asbestos (fibers/cm ³) | Exceedance (Yes/No) |
| 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 ² | 1 | 2.3 | 430 | 989 | 16.5 | 0.008 | No |
| MSC02-051823 | 05/18/23 ² | 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 ² | 1 | 3.2 | 458 | 1465 | 27.5 | 0.009 | No |
| MSC02-052523 | 05/25/23 ² | 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 ² | 1 | 3.4 | 501 | 1703 | 18.0 | 0.005 | No |
| MSC02-060123 | 06/01/23 ² | 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 ² | 1 | 3.6 | 423 | 1522 | 14.0 | 0.005 | No |
| MSC02-060823 | 06/08/23 ² | 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 ² | 1 | 3.2 | 356 | 1139 | 19.0 | 0.002 | No |
| MSC02-061523 | 06/15/23 ² | 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 ² | 1 | 3.4 | 506 | 1720 | 17.5 | 0.005 | No |
| MSC02-062223 | 06/22/23 ² | 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 ² | 1 | 3.7 | 342 | 1265 | 14.5 | 0.006 | No |
| MSC02-062923 | 06/29/23 ² | 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 ² | 1 | 3.6 | 513 | 1846 | 15.0 | 0.004 | No |
| MSC02-070623 | 07/06/23 ² | 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 ¹ | Monitoring Station | Ave Flow Rate (l/min) | Duration of Run (min) | Total Air Volume Monitored (L) | Asbestos (fibers) | Conc Asbestos (fibers/cm ³) | Exceedance (Yes/No) |
| MSC01-071323 | 07/13/23 ² | 1 | 3.6 | 480 | 1728 | 11.0 | 0.003 | No |
| MSC02-071323 | 07/13/23 ² | 1 | 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 ² | 1 | 3.6 | 537 | 1933 | 7.5 | 0.002 | No |
| MSC02-072023 | 07/20/23 ² | 1 | 3.4 | 515 | 1751 | 10.0 | 0.003 | No |

Notes:

¹Sample "end" date indicates the date upon which sample collection ended.

²Air 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/cm³ = fibers per cubic centimeter

< = below detection limit

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

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

Attachment 3

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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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | 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 ² | 442.87 | 0.014 | 0.005 | 5.000 | 5,000 | No | 50 | No |
| GESPM101722-645 | MSC02 | 12/8/22 ² | 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 ² | 400.35 | 0.37716998 J | -0.3744 | -374.429 | 5,000 | No | 50 | No |
| PM113022-27 | MSC02 | 1/19/23 ² | 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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | 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 ² | 447.97 | 0.01674219 | 0.0053 | 5.314 | 5,000 | No | 50 | No |
| PM112922-24 | MSC02 | 2/09/23 ² | 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 ² | 426.46 | 0.01055199 | 0.0018 | 1.767 | 5,000 | No | 50 | No |
| PM011823-15 | MSC02 | 2/16/23 ² | 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 ² | 557.83 | 0.00681211 | 0.0003 | 0.272 | 5,000 | No | 50 | No |
| PM011823-20 | MSC02 | 2/23/23 ² | 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 ² | 482.00 | 0.00497925 | 0.0104 | 10.425 | 5,000 | No | 50 | No |
| PM013123-53 | MSC02 | 3/02/23 ² | 480.38 | 0.01540447 | | | | | | |
| 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 ² | 407.20 | 0.00589391 | 0.003109 | 3.109 | 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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | Exceedance (Yes/No) |
| PM020323-21 | MSC02 | 3/09/23 ² | 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 ² | 476.42 | 0.0182612 | -0.008124 | -8.124 | 5,000 | No | 50 | No |
| PM020623-01 | MSC02 | 3/16/23 ² | 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 ² | 490.88 | 0.0077412 | 0.005404 | 5.404 | 5,000 | No | 50 | No |
| PM020623-19 | MSC02 | 3/23/23 ² | 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 ² | 514.11 | 0.00213962 | -0.008530 | -8.530 | 5,000 | No | 50 | No |
| PM020223-28 | MSC02 | 3/30/23 ² | 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 | | | | | | |
| PM020923-01 | MSC01 | 4/06/23 ² | 554.30 | 0.00847916 | 0.003467 | 3.467 | 5,000 | No | 50 | No |
| PM020923-03 | MSC02 | 4/06/23 ² | 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 ² | 539.42 | 0.01149383 | -0.002648 | -2.648 | 5,000 | No | 50 | No |
| PM020823-12 | MSC02 | 4/13/23 ² | 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 |

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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | Exceedance (Yes/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 ² | 519.91 | 0.02038814 | 0.003263 | 3.263 | 5,000 | No | 50 | No |
| PM022023-05 | MSC02 | 4/20/23 ² | 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 ² | 520.43 | 0.02497934 | -0.000148 | -0.148 | 5,000 | No | 50 | No |
| PM030923-04 | MSC02 | 4/27/23 ² | 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 |
| PM031223-09 | MSC02 | 5/03/23 | 1644.00 | 0.00656934 | | | | | | |
| PM031223-11 | MSC01 | 5/04/23 ² | 578.40 | 0.00639696 J+ | 0.005374 | 5.374 | 5,000 | No | 50 | No |
| PM031223-13 | MSC02 | 5/04/23 ² | 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 ² | 507.13 | 0.01380317 | 0.003840 | 3.840 | 5,000 | No | 50 | No |
| PM031423-13 | MSC02 | 5/11/23 ² | 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 ² | 484.26 | 0.00433651 | 0.009795 | 9.795 | 5,000 | No | 50 | No |
| PM031523-34 | MSC02 | 5/18/23 ² | 474.13 | 0.01413115 | | | | | | |
| PM030323-10 | MSC01 | 5/23/23 | 1704.60 | 0.00874105 | 0.028104 | 28.104 | 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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | Exceedance (Yes/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 ² | 532.95 | 0.01200863 | 0.007579 | 7.579 | 5,000 | No | 50 | No |
| PM030923-18 | MSC02 | 5/25/23 ² | 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+ | | | | | | |
| 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 ² | 572.70 | 0.02514405 J+ | 0.003676 | 3.676 | 5,000 | No | 50 | No |
| PM031223-42 | MSC02 | 6/01/23 ² | 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 ² | 370.51 | 0.01268522 J+ | 0.000646 | 0.646 | 5,000 | No | 50 | No |
| PM032123-28 | MSC02 | 6/08/23 ² | 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 ² | 416.70 | 0.01031917 J+ | -0.000189 | -0.189 | 5,000 | No | 50 | No |
| PM032223-22 | MSC02 | 6/15/23 ² | 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 | | | | | | |

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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | Exceedance (Yes/No) |
| PM032423-16 | MSC01 | 6/22/23 ² | 577.80 | 0.01574939 | 0.002567 | 2.567 | 5,000 | No | 50 | No |
| PM032423-18 | MSC02 | 6/22/23 ² | 562.33 | 0.01831665 | | | | | | |
| PM031623-20 | MSC01 | 6/27/23 | 1634.93 | 0.00868539 | 0.002608 | 2.608 | 5,000 | No | 50 | 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 ² | 390.12 | 0.01256024 J+ | -0.000042 | -0.042 | 5,000 | No | 50 | No |
| PM031623-34 | MSC02 | 6/29/23 ² | 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 ² | 585.42 | 0.01161559 | 0.304645 | 304.645 | 5,000 | No | 50 | Yes |
| PM032023-12 | MSC02 | 7/06/23 ² | 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 ² | 559.46 | 0.00446859 J+ | 0.004396 | 4.396 | 5,000 | No | 50 | No |
| PM041823-66 | MSC02 | 7/13/23 ² | 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 | | | | | | |

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 ³) | Concentration in Air (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (mg/m ³) | PM10 Perimeter Concentration (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level ¹ (ug/m ³) | Exceedance (Yes/No) |
| PM042123-60 | MSC01 | 7/20/23 ² | 611.02 | 0.01603875 | 0.002500 | 2,500 | 5,000 | No | 50 | No |
| PM042123-62 | MSC02 | 7/20/23 ² | 582.55 | 0.01853918 | | | | | | |

Notes:

¹PM10 data is additionally compared to the recommended dust action level of 50 ug/m³ 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.

²Air 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

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

Attachment 4

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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 ³) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) |
| 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 ² | 442.87 | 0.0000032 | No | 0.0000079 | No |
| GESPM101722-645 | MSC02 | 12/8/22 ² | 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 ² | 397.82 | < 0.00003519 | No | < 0.00024634 | No |
| TSP113022-28 | MSC02 | 1/19/23 ² | 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 ² | 447.38 | < 0.00003129 UJ | No | < 0.00021905 | No |
| TSP112922-25 | MSC02 | 2/09/23 ² | 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 ² | 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 ³) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) |
| TSP011823-16 | MSC02 | 2/16/23 ² | 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 ³ | 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 ² | 557.12 | < 0.00002513 | No | < 0.0001759 | No |
| TSP011823-21 | MSC02 | 2/23/23 ² | 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 ² | 480.87 | < 0.00002911 | No | < 0.0002038 | No |
| TSP013123-54 | MSC02 | 3/02/23 ² | 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 ³ | 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 ² | 404.96 | < 0.00003457 | No | < 0.000242 | No |
| TSP020323-22 | MSC02 | 3/09/23 ² | 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 ² | 480.10 | < 0.00002916 | No | < 0.00020412 | No |
| TSP020623-02 | MSC02 | 3/16/23 ² | 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 ² | 466.67 | < 0.00003 | No | < 0.00021 | No |
| TSP020623-20 | MSC02 | 3/23/23 ^{1,2} | 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 ² | 514.18 | < 0.00002723 | No | < 0.00019059 | No |
| TSP020223-29 | MSC02 | 3/30/23 ² | 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 ² | 554.40 | < 0.00002525 | No | < 0.00017677 | No |
| TSP020923-04 | MSC02 | 4/06/23 ² | 581.88 | < 0.00002406 | No | < 0.00016842 | No |
| TSP021523-33 | MSC01 | 4/11/23 | 1698.82 | < 0.00000824 | No | < 0.00005769 | 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 ³) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) | Concentration in Air (mg/m ³) | Exceedance (Yes/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 ² | 534.94 | < 0.00002617 | No | < 0.0001832 | No |
| TSP020823-13 | MSC02 | 4/13/23 ² | 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 ² | 522.60 | < 0.00002679 | No | < 0.00018752 | No |
| TSP022023-06 | MSC02 | 4/20/23 ² | 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 ¹ | 776.68 | < 0.00001803 | No | < 0.00012618 | No |
| TSP030923-03 | MSC01 | 4/27/23 ² | 525.64 | < 0.00002663 | No | < 0.00018644 | No |
| TSP030923-05 | MSC02 | 4/27/23 ² | 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 ² | 578.57 | < 0.0000242 | No | < 0.00016938 | No |
| TSP031223-14 | MSC02 | 5/04/23 ² | 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 ² | 512.83 | < 0.0000273 | No | < 0.0001911 | No |
| TSP031423-14 | MSC02 | 5/11/23 ² | 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 ² | 488.64 | < 0.00002865 | No | < 0.00020056 | No |
| TSP031523-35 | MSC02 | 5/18/23 ² | 505.82 | < 0.00002768 | No | < 0.00019374 | 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 ³) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) | Concentration in Air (mg/m ³) | Exceedance (Yes/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 ² | 534.21 | < 0.00002621 | No | < 0.00018345 | No |
| TSP030923-19 | MSC02 | 5/25/23 ² | 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 ² | 575.36 | < 0.00002433 | No | < 0.00017033 | No |
| TSP031223-43 | MSC02 | 6/01/23 ² | 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 ¹ | 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 ² | 368.37 | < 0.00003801 | No | < 0.00026604 | No |
| TSP032123-29 | MSC02 | 6/08/23 ² | 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 ² | 415.38 | < 0.0000337 | No | < 0.00023593 | No |
| TSP032223-23 | MSC02 | 6/15/23 ² | 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 ² | 576.12 | < 0.0000243 | No | < 0.0001701 | No |
| TSP032423-19 | MSC02 | 6/22/23 ² | 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 |
| TSP032223-33 | MSC01 | 6/29/23 ² | 388.84 | < 0.000036 | No | < 0.00025203 | 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 ³) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) | Concentration in Air (mg/m ³) | Exceedance (Yes/No) |
| TSP031623-35 | MSC02 | 6/29/23 ² | 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 ² | 589.47 | < 0.00002375 | No | < 0.00016625 | No |
| TSP032023-13 | MSC02 | 7/06/23 ² | 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 ² | 556.36 | < 0.00002516 | No | < 0.00017614 | No |
| TSP041823-67 | MSC02 | 7/13/23 ² | 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 ² | 612.22 | < 0.00002287 | No | < 0.00016007 | No |
| TSP042123-63 | MSC02 | 7/20/23 ² | 617.13 | < 0.00002269 | No | < 0.0001588 | No |

Notes:

¹Generator or sampler malfunction.

²Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

< = below detection limit

m³ = cubic meters

mg/m³ = 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

ATTACHMENT 5
TOTAL SUSPENDED PARTICULATES
MONITORING RESULTS

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

Attachment 5

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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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ² | 450.97 | 0.0495 | -0.0189 | -18.90 | 5,000 | No | 500 | No |
| GESTSP101722-645 | MSC02 | 12/8/22 ² | 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 ² | 397.82 | 0.00327 J | -0.00068 | -0.68 | 5,000 | No | 500 | No |
| TSP113022-28 | MSC02 | 1/19/23 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ² | 447.38 | 0.0329 | 0.008000 | 8.00 | 5,000 | No | 500 | No |
| TSP112922-25 | MSC02 | 2/09/23 ² | 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 ² | 424.73 | 0.0165 | 0.003 | 2.60 | 5,000 | No | 500 | No |
| TSP011823-16 | MSC02 | 2/16/23 ² | 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 ³ | 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 ² | 557.12 | 0.0185 | -0.0082 | -8.20 | 5,000 | No | 500 | No |
| TSP011823-21 | MSC02 | 2/23/23 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ² | 480.87 | 0.0206 | 0.0041 | 4.10 | 5,000 | No | 500 | No |
| TSP013123-54 | MSC02 | 3/02/23 ² | 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 ³ | 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 ² | 404.96 | 0.0143 | -0.0001 | -0.10 | 5,000 | No | 500 | No |
| TSP020323-22 | MSC02 | 3/09/23 ² | 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 ² | 480.10 | 0.0344 | -0.0020 | -2.00 | 5,000 | No | 500 | No |
| TSP020623-02 | MSC02 | 3/16/23 ² | 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 ² | 466.67 | 0.0334 | -0.0122 | -12.20 | 5,000 | No | 500 | No |
| TSP020623-20 | MSC02 | 3/23/23 ^{1,2} | 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 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | Exceedance (Yes/No) |
| TSP020223-29 | MSC02 | 3/30/23 ² | 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 ² | 554.40 | 0.0162 | 0.0008 | 0.80 | 5,000 | No | 500 | No |
| TSP020923-04 | MSC02 | 4/06/23 ² | 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 ² | 534.94 | 0.0295 | -0.0011 | -1.10 | 5,000 | No | 500 | No |
| TSP020823-13 | MSC02 | 4/13/23 ² | 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 ² | 522.60 | 0.0346 | 0.0051 | 5.10 | 5,000 | No | 500 | No |
| TSP022023-06 | MSC02 | 4/20/23 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ¹ | 776.68 | 0.042 | | | | | | |
| TSP030923-03 | MSC01 | 4/27/23 ² | 525.64 | 0.0795 | -0.0295 | -29.50 | 5,000 | No | 500 | No |
| TSP030923-05 | MSC02 | 4/27/23 ² | 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 ² | 578.57 | 0.0164 | 0.0011 | 1.10 | 5,000 | No | 500 | No |
| TSP031223-14 | MSC02 | 5/04/23 ² | 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 ² | 512.83 | 0.0228 | 0.0133 | 13.30 | 5,000 | No | 500 | No |
| TSP031423-14 | MSC02 | 5/11/23 ² | 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 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | Exceedance (Yes/No) |
| TSP031523-35 | MSC02 | 5/18/23 ² | 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 ² | 534.21 | 0.0268 | 0.0086 | 8.60 | 5,000 | No | 500 | No |
| TSP030923-19 | MSC02 | 5/25/23 ² | 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 ² | 575.36 | 0.0525 | 0.0008 | 0.80 | 5,000 | No | 500 | No |
| TSP031223-43 | MSC02 | 6/01/23 ² | 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 ¹ | 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 ² | 368.37 | 0.0282 | 0.0009 | 0.90 | 5,000 | No | 500 | No |
| TSP032123-29 | MSC02 | 6/08/23 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentra-tion (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentra-tion (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ² | 415.38 | 0.0248 | 0.0082 | 8.20 | 5,000 | No | 500 | No |
| TSP032223-23 | MSC02 | 6/15/23 ² | 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 ² | 576.12 | 0.042 | -0.0008 | -0.80 | 5,000 | No | 500 | No |
| TSP032423-19 | MSC02 | 6/22/23 ² | 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 ² | 388.84 | 0.0257 | 0.0037 | 3.70 | 5,000 | No | 500 | No |
| TSP031623-35 | MSC02 | 6/29/23 ² | 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 ² | 589.47 | 0.0316 | 0.0028 | 2.80 | 5,000 | No | 500 | No |
| TSP032023-13 | MSC02 | 7/06/23 ² | 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 ³) | Concen-tration in Air (mg/m ³) | TSP Perimeter Concentrati-on (Downwind - Upwind) (mg/m ³) | TSP Perimeter Concentratio-n (Downwind - Upwind) (ug/m ³) | Cal/OSHA PEL (ug/m ³) | Exceedance (Yes/No) | HERO Action Level (ug/m ³) | 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 ² | 556.36 | 0.0214 | 0.0004 | 0.40 | 5,000 | No | 500 | No |
| TSP041823-67 | MSC02 | 7/13/23 ² | 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 ² | 612.22 | 0.0381 | -0.0059 | -5.90 | 5,000 | No | 500 | No |
| TSP042123-63 | MSC02 | 7/20/23 ² | 617.13 | 0.0322 | | | | | | |

Notes:

¹Generator or sampler malfunction

²Air 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

m³ = cubic meters

mg/m³ = milligrams per cubic meter

Bold = result above project screening criteria

ATTACHMENT 6
RADIONUCLIDES OF CONCERN AIR SAMPLING RESULTS

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

Attachment 6

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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) | |
|-------------------|-----------------|-----------------------|------------|----|-------------------|----|------------|----|--------------|----|-----------|----|-------------|----|---------------------|--|
| | | | 4.00E-11 | | 4.00E-15 | | 1.80E-13 | | 1.20E-12 | | 1.00E-11 | | 1.20E-15 | | | |
| | | | μCi/mL | | 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 | J | 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 | J | 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 ¹ | |
| | 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 | U | 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 | U | 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 ² | |
| 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 | UJ | 7.81E-15 | U | 9.53E-16 | UJ | No | |
| 04/03/23-04/06/23 | 1 | 4851 | 2.88E-15 | U | 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 | | 1.20E-15 | | | | |
| Units | | | μCi/mL | | 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 | J | 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 | J | 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 | J | 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 | J | 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 | J | 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 | J | 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 | J | 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 | 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

¹ = 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

² = 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

Attachment 7

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Laboratory Analysis Report

Job ID : 23070284



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

| | | |
|--------------------|-----------------------------------------------------------|----------------------------------|
| Report To : | Client Name: GES - ASRC Industrial | Total Number of Pages: 9 |
| | Attn: [REDACTED] | P.O.#. : |
| | Client Address: 1501 West Fountainhead Parkway, Ste. #550 | Date Received : 07/06/2023 09:07 |
| | 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-062623 | 6/26/2023 8:00 | Cassette | 23070284.01 |
| MSC01-062623 | 6/27/2023 6:56 | Cassette | 23070284.02 |
| MSC02-062623 | 6/27/2023 6:43 | Cassette | 23070284.03 |
| MSC01-062723 | 6/28/2023 6:58 | Cassette | 23070284.04 |
| MSC02-062723 | 6/28/2023 6:46 | Cassette | 23070284.05 |
| MSC01-062823 | 6/29/2023 6:52 | Cassette | 23070284.06 |
| MSC02-062823 | 6/29/2023 7:07 | Cassette | 23070284.07 |
| MSC01-062923 | 6/29/2023 12:37 | Cassette | 23070284.08 |
| MSC02-062923 | 6/29/2023 12:35 | Cassette | 23070284.09 |

[REDACTED]
Released By: [REDACTED]

Title: Vice President Operations

[REDACTED]
Analyst: [REDACTED]

ab-q210-0321
7/17/2023

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.



**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 7/17/2023

Job ID : 23070284

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 |
| 23070284.01 | FBC-062623 | 06/26/2023 | | | | | 0 | 100 | 20 | 25.478 | 0.000 | | 07/17/23 | | |
| 23070284.02 | MSC01-062623 | 06/27/2023 | Area | 3.6 | | | 1420 | 5112 | 100 | 15.0 | 19.108 | 0.001 | | 07/17/23 | |
| 23070284.03 | MSC02-062623 | 06/27/2023 | Area | 3.6 | | | 1417 | 5101. | 100 | 16.5 | 21.019 | 0.002 | | 07/17/23 | |
| 23070284.04 | MSC01-062723 | 06/28/2023 | Area | 3.4 | | | 1440 | 4896 | 100 | 16.0 | 20.382 | 0.002 | | 07/17/23 | |
| 23070284.05 | MSC02-062723 | 06/28/2023 | Area | 3.4 | | | 1441 | 4899. | 100 | 12.0 | 15.287 | 0.001 | | 07/17/23 | |
| 23070284.06 | MSC01-062823 | 06/29/2023 | Area | 3.5 | | | 1432 | 5012 | 100 | 22.5 | 28.662 | 0.002 | | 07/17/23 | |
| 23070284.07 | MSC02-062823 | 06/29/2023 | Area | 3.2 | | | 1461 | 4675. | 100 | 12.5 | 15.924 | 0.001 | | 07/17/23 | |
| 23070284.08 | MSC01-062923 | 06/29/2023 | Area | 3.7 | | | 342 | 1265. | 100 | 14.5 | 18.471 | 0.006 | | 07/17/23 | |
| 23070284.09 | MSC02-062923 | 06/29/2023 | Area | 3.3 | | | 326 | 1075. | 100 | 15.5 | 19.745 | 0.007 | | 07/17/23 | |

Detection limit of this method is estimated at 7 f/mm2 (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 : 23070284 | Date Received : 07/06/2023 | Time Received : 9:07AM | | |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|
| Client Name : GES - ASRC Industrial | | | | |
| Temperature : 24.3°C | Sample pH : NA | | | |
| Thermometer ID : IR5 | pH Paper ID : NA | | | |
| Perservative : | | | | |
| | Check Points | Yes | No | N/A |
| 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] 6/28/2023

Received by : [REDACTED]

Check in by/date : [REDACTED] / 07/06/2023

ab-s005-0321



07/06/2023 GES - ASRC Industrial ACH

**COASTAL STUDY
RECORD**

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

COC ID # [REDACTED] 070523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 | X 7/5/23 | Code Matrix | Page 1 of 4 | | |
| 1 | Air | | | | | | | | | | |
| AQ | Air Quality Control Matrix | | | | | | | | | | |
| Equipment: Event: Parcel C Asbestos | | | | | Code Container/Preservative | 1 | Filter/No Preservatives | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | |
| 1 FBC-062623 | AQ | 06/26/2023 | 0800 | [REDACTED] | FBC | FB1 | 0.00 | 0.00 | 1 | | |
| 2 MSC01-062623 | A | 06/27/2023 | 0656 | [REDACTED] | MSC01 | N1 | 0.00 | 0.00 | 1 | | |
| 3 MSC02-062623 | A | 06/27/2023 | 0643 | [REDACTED] | MSC02 | N1 | 0.00 | 0.00 | 1 | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|--------|------|--------------------------|--------|------|-------------------------------------------------------|
| [REDACTED] | 7/5/23 | 1300 | Fedex | 7/5/23 | 1300 | Shipping Date: 07/05/23 / FEDEX 7724 3169 0540 |
| Kris | 7/1/23 | 9:07 | | | | y: (Signature, Date, Time) & condition 7/6/23 9:07 |

24.3°C 1025

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # 070523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 |
| A | Air |
| AQ | Air Quality Control Matrix |

| | |
|------|-------------------------|
| Code | Container/Preservative |
| 1 | Filter/No Preservatives |

Page 2 of 4

Equipment

Event: Parcel C Asbestos

Analytical Test Method

1

7/5/23

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|--------|------|--------------------------|--------|------|---------------------------------------------------------------------------------------|
| [REDACTED] | 7/5/23 | 1300 | Fedex | 7/5/23 | 1300 | Shipping Date: 07/05/23 / FEDEX 7724 3169 0540 |
| Fedex | 7/6/23 | 9:07 | | | | Received by/Laboratory: (Signature, Date, Time) & condition [REDACTED] 7/6/23 9:07 |

24.3°C FR25

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # ■■■070523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 |
| A | Air |
| AQ | Air Quality Control Matrix |

| | |
|-------------|-------------------------------|
| Code | Container/Preservative |
| 1 | Filter/In Preservatives |

Page 3 of 4

Equipment:

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|--------|-------|--------------------------|--------|-------|-------------------------------------------------------|
| [REDACTED] | 7/5/23 | 13:01 | Torrey | 7/5/23 | 12:00 | Shipping Date: 07/05/23 / FEDEX 7724 3169 0540 |
| [REDACTED] Torrey | 7/6/23 | 9:07 | | | | Received Date, Date, Time) & condition 7/6/23 9:07 |

24.3 °C
JWS

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # █ 070523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation | Laboratory: A&B Labs | Event: Parcel C Asbestos |
| Project Number: J31000600 | POC: █ | |
| 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 4 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. | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments |
| 1 MSC01-062923 | A | 06/29/2023 | 1237 | x | MSC01 | N1 | 0.00 | 0.00 | 1 |
| 2 MSC02-062923 | A | 06/29/2023 | 1235 | x | MSC02 | N1 | 0.00 | 0.00 | 1 |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|------|--------------------------|--------|------|------------------------------------------------|
| ██████████ | 7/5/23 | 1300 | Fedex | 7/5/23 | 1300 | Shipping Date: 07/05/23 / FEDEX 7724 3169 0540 |
| Felix | 7/10/23 | 9:07 | | | | ██████████ 7/14/23 9:07 |

Flow Rate, Total Time

| Sample ID | End Date | End Time | Flow Rate (l/min), Total Time (mins) |
|--------------|----------|-------------|--------------------------------------|
| FBC-062623 | 6/26/23 | 8:00:00 AM | N/A |
| MSC01-062623 | 6/27/23 | 6:56:00 AM | 3.6; 1420 |
| MSC02-062623 | 6/27/23 | 6:43:00 AM | 3.6; 1417 |
| MSC01-062723 | 6/28/23 | 6:58:00 AM | 3.4; 1440 |
| MSC02-062723 | 6/28/23 | 6:46:00 AM | 3.4; 1441 |
| MSC01-062823 | 6/29/23 | 6:52:00 AM | 3.5; 1432 |
| MSC02-062823 | 6/29/23 | 7:07:00 AM | 3.2; 1461 |
| MSC01-062923 | 6/29/23 | 12:37:00 PM | 3.7; 342 |
| MSC02-062923 | 6/29/23 | 12:35:00 PM | 3.3; 326 |

| | |
|------------------------------|-------------------------|
| ORIGIN ID: ICCA [REDACTED] | SHIP DATE: 20JUN23 |
| GES-AIS 200 FISHER STREET | ACTWGT: 1.00 LB |
| SAN FRANCISCO, CA 94124 | CAD: 254128867/INET4610 |
| UNITED STATES US | BILL SENDER |

TO [REDACTED]

A&B LABS
10100 EAST FREEWAY, SUITE 100

HOUSTON TX 77029

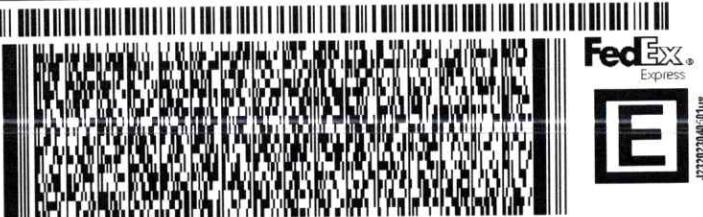
(713) 453-6060

REF J31000 900 02 04 05

INV/

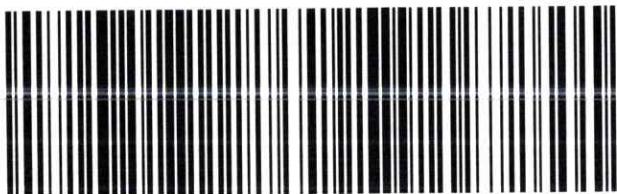
PO

DEPT



WED - 21 JUN 4:30P

STANDARD OVERNIGHT

TRK#
0201 7724 3169 0540**AB HBYA**77029
TX-US IAH

583.029ABFFE2D

- 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 addition to 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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Laboratory Analysis Report

Job ID : 23070946



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

| | | |
|--------------------|-----------------------------------------------------------|----------------------------------|
| Report To : | Client Name: GES - ASRC Industrial | Total Number of Pages: 7 |
| | Attn: [REDACTED] | P.O.#. : |
| | Client Address: 1501 West Fountainhead Parkway, Ste. #550 | Date Received : 07/12/2023 09:02 |
| | 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-070523 | 7/5/2023 8:00 | Cassette | 23070946.01 |
| MSC01-070523 | 7/6/2023 6:43 | Cassette | 23070946.02 |
| MSC02-070523 | 7/6/2023 6:59 | Cassette | 23070946.03 |
| MSC01-070623 | 7/6/2023 15:18 | Cassette | 23070946.04 |
| MSC02-070623 | 7/6/2023 15:06 | Cassette | 23070946.05 |

[REDACTED]
Released By: [REDACTED]

Title: Vice President Operations

[REDACTED]
Analyst: [REDACTED]

ab-q210-0321

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.

7/19/2023



**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 7/19/2023

Job ID : 23070946

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 |
| 23070946.01 | FBC-070523 | 07/05/2023 | Area | | | | 0 | 100 | 14.0 | 17.834 | 0.000 | | 07/19/23 | | |
| 23070946.02 | MSC01-070523 | 07/06/2023 | Area | 3.6 | | | 1431 | 5151. | 100 | 19.5 | 24.841 | 0.002 | | 07/19/23 | |
| 23070946.03 | MSC02-070523 | 07/06/2023 | Area | 3.4 | | | 1422 | 4834. | 100 | 18.0 | 22.930 | 0.002 | | 07/19/23 | |
| 23070946.04 | MSC01-070623 | 07/06/2023 | Area | 3.6 | | | 513 | 1846. | 100 | 15.0 | 19.108 | 0.004 | | 07/19/23 | |
| 23070946.05 | MSC02-070623 | 07/06/2023 | Area | 3.3 | | | 486 | 1603. | 100 | 17.5 | 22.293 | 0.005 | | 07/19/23 | |

Detection limit of this method is estimated at 7 f/mm² (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 : 23070946 | Date Received : 07/12/2023 | Time Received : 9:02AM | | |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|
| Client Name : GES - ASRC Industrial | | | | |
| Temperature : 24.4°C | Sample pH : NA | | | |
| Thermometer ID : IR5 | pH Paper ID : NA | | | |
| Perservative : | | | | |
| | Check Points | Yes | No | N/A |
| 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] 7/12/2023

Received by : [REDACTED]

Check in by/date : [REDACTED] / 07/12/2023

ab-s005-0321



07/12/2023 GES - ASRC Industrial ACH

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

COC ID # [REDACTED] 071123ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 2 |
| | A Air | |
| | AQ Air Quality Control Matrix | |
| | Code Container/Preservative | |
| | I Filter/No Preservatives | |

| Equipment: | | | | | | Analytical Test Method | Asbestos | 1 | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments |
|----------------|--------|------------|------|------------|---|------------------------|----------|---|-------------|-------------|----------------|------|--------|----------|
| Sample ID | Matrix | Date | Time | Samp Init. | x | | | | | | Top - Bottom | | | |
| 1 FBC-070523 | AQ | 07/05/2023 | 0800 | [REDACTED] | x | | | | FBC | FB1 | 0.00 | 0.00 | 1 | |
| 2 MSC01-070523 | A | 07/06/2023 | 0643 | [REDACTED] | x | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 3 MSC02-070523 | A | 07/06/2023 | 0659 | [REDACTED] | x | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
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| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|------|--------------------------|---------|------|------------------------------------------------------------------|
| [REDACTED] | 7/11/23 | 1300 | Fedex | 7/11/23 | 1300 | Shipping Date: 07/11/23 / FEDEX 7725 8532 9134 |
| [REDACTED] | 7/12/23 | 9:02 | | | | Received by: (Signature, Date, Time) & condition 7/12/23 9:02 |

26.4°C
JAS

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # 071123ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation | Laboratory: A&B Labs | Event: Parcel C Asbestos |
| Project Number: J31000600 | POC: | |
| 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> | | | | | | <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 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Code | Matrix | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | Air | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AQ | Air Quality Control Matrix | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Equipment:</p> <table border="1"> <tr> <td>Event: Parcel C Asbestos</td> <td>1</td> </tr> </table> | | | | | | Event: Parcel C Asbestos | 1 | <table border="1"> <tr> <td>Code</td> <td>Container/Preservative</td> </tr> <tr> <td>1</td> <td>Filter/No Preservatives</td> </tr> </table> | | Code | Container/Preservative | 1 | Filter/No Preservatives | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Event: Parcel C Asbestos | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Code | Container/Preservative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Filter/No Preservatives | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04/08 05/08 | <table border="1"> <thead> <tr> <th>Sample ID</th> <th>Matrix</th> <th>Date</th> <th>Time</th> <th>Samp Init.</th> <th>Asbestos</th> <th>Analytical Test Method</th> </tr> </thead> <tbody> <tr><td>1 MSC01-070623</td><td>A</td><td>07/06/2023</td><td>1518</td><td>x</td><td></td><td></td></tr> <tr><td>2 MSC02-070623</td><td>A</td><td>07/06/2023</td><td>1506</td><td>x</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> | Sample ID | Matrix | Date | Time | Samp Init. | Asbestos | Analytical Test Method | 1 MSC01-070623 | A | 07/06/2023 | 1518 | x | | | 2 MSC02-070623 | A | 07/06/2023 | 1506 | x | | | 3 | | | | | | | 4 | | | | | | | 5 | | | | | | | 6 | | | | | | | 7 | | | | | | | 8 | | | | | | | 9 | | | | | | | 10 | | | | | | | 11 | | | | | | | <table border="1"> <thead> <tr> <th rowspan="2">Location ID</th> <th rowspan="2">Sample Type</th> <th colspan="2">Depth (ft bgs)</th> <th rowspan="2">Cooler</th> <th rowspan="2">Comments</th> </tr> <tr> <th>Top</th> <th>Bottom</th> </tr> </thead> <tbody> <tr><td>MSC01</td><td>N1</td><td>0.00</td><td>0.00</td><td>1</td><td></td></tr> <tr><td>MSC02</td><td>N1</td><td>0.00</td><td>0.00</td><td>1</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | Top | Bottom | MSC01 | N1 | 0.00 | 0.00 | 1 | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sample ID | Matrix | Date | Time | Samp Init. | Asbestos | Analytical Test Method | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 MSC01-070623 | A | 07/06/2023 | 1518 | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 MSC02-070623 | A | 07/06/2023 | 1506 | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Turnaround Time: 7 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by: (Signature) | | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 7/11/23 | 1300 | Fedex | 7/11/23 | 1300 | Shipping Date: 07/11/23 / FEDEX 7725 8532 9134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>fecas</i> | | 7/12/23 | 9:02 | | | | (Signature, Date, Time) & condition | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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COC ID # [REDACTED] 071123ASBC

Flow Rate, Total Time

| Sample ID | End Date | End Time | Flow Rate (L/min), Total Time (mins) |
|--------------|----------|------------|--------------------------------------|
| FBC-070523 | 7/5/23 | 8:00:00 AM | N/A |
| MSC01-070523 | 7/6/23 | 6:43:00 AM | 3.6; 1431 |
| MSC02-070523 | 7/6/23 | 6:59:00 AM | 3.4; 1422 |
| MSC01-070623 | 7/6/23 | 3:18:00 PM | 3.6; 513 |
| MSC02-070623 | 7/6/23 | 3:06:00 PM | 3.3; 486 |

ORIGINID: ICCA [REDACTED]

GES-AIS
200 FISHER STREET

SAN FRANCISCO, CA 94124
UNITED STATES US

TO [REDACTED]

SHIP DATE: 07JUL23
ACTWGT: 1.00 LB
CAD: 254128867/INET4610

BILL SENDER

A&B LABS

10100 EAST FREEWAY, SUITE 100

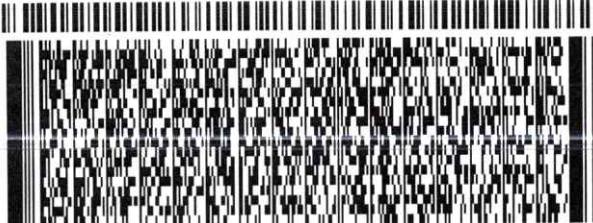
HOUSTON TX 77029

(713) 453-6060

REF J31000 900 02 04 05

INV:
PO:

DEPT:



J31000 900 02 04 05

MON - 10 JUL 4:30P

STANDARD OVERNIGHT

TRK#
0201

7725 8532 9134

77029
TX-US IAH

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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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Laboratory Analysis Report

Job ID : 23071716



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

| | | |
|--------------------|-----------------------------------------------------------|----------------------------------|
| Report To : | Client Name: GES - ASRC Industrial | Total Number of Pages: 9 |
| | Attn: [REDACTED] | P.O.#. : |
| | Client Address: 1501 West Fountainhead Parkway, Ste. #550 | Date Received : 07/19/2023 09:07 |
| | 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-071023 | 7/10/2023 8:00 | Cassette | 23071716.01 |
| MSC01-071023 | 7/11/2023 6:40 | Cassette | 23071716.02 |
| MSC02-071023 | 7/11/2023 6:53 | Cassette | 23071716.03 |
| MSC01-071123 | 7/12/2023 6:38 | Cassette | 23071716.04 |
| MSC02-071123 | 7/12/2023 6:50 | Cassette | 23071716.05 |
| MSC01-071223 | 7/13/2023 6:53 | Cassette | 23071716.06 |
| MSC02-071223 | 7/13/2023 7:04 | Cassette | 23071716.07 |
| MSC01-071323 | 7/13/2023 14:55 | Cassette | 23071716.08 |
| MSC02-071323 | 7/13/2023 14:56 | Cassette | 23071716.09 |

[REDACTED]
Released By: [REDACTED]

Analyst: [REDACTED]

Title: Vice President Operations

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

7/26/2023



**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 7/26/2023

Job ID : 23071716

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 |
| 23071716.01 | FBC-071023 | 07/10/2023 | Area | | | | 0 | 100 | 19.5 | 24.841 | 0.000 | | 07/26/23 | | |
| 23071716.02 | MSC01-071023 | 07/11/2023 | Area | 3.4 | | | 1403 | 4770. | 100 | 8.0 | 10.191 | 0.001 | | 07/26/23 | |
| 23071716.03 | MSC02-071023 | 07/11/2023 | Area | 3.6 | | | 1433 | 5158. | 100 | 16.5 | 21.019 | 0.002 | | 07/26/23 | |
| 23071716.04 | MSC01-071123 | 07/12/2023 | Area | 3.3 | | | 1437 | 4742. | 100 | 16.0 | 20.382 | 0.002 | | 07/26/23 | |
| 23071716.05 | MSC02-071123 | 07/12/2023 | Area | 3.6 | | | 1435 | 5166 | 100 | 14.5 | 18.471 | 0.001 | | 07/26/23 | |
| 23071716.06 | MSC01-071223 | 07/13/2023 | Area | 3.6 | | | 1454 | 5234. | 100 | 19.5 | 24.841 | 0.002 | | 07/26/23 | |
| 23071716.07 | MSC02-071223 | 07/13/2023 | Area | 3.5 | | | 1453 | 5085. | 100 | 17 | 21.656 | 0.002 | | 07/26/23 | |
| 23071716.08 | MSC01-071323 | 07/13/2023 | Area | 3.6 | | | 480 | 1728 | 100 | 11.0 | 14.013 | 0.003 | | 07/26/23 | |
| 23071716.09 | MSC02-071323 | 07/13/2023 | Area | 3.4 | | | 470 | 1598 | 100 | 19.5 | 24.841 | 0.006 | | 07/26/23 | |

Detection limit of this method is estimated at 7 f/mm2 (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 : 23071716 | Date Received : 07/19/2023 | Time Received : 9:07AM | | |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|
| Client Name : GES - ASRC Industrial | | | | |
| Temperature : 24.1°C | Sample pH : NA | | | |
| Thermometer ID : IR5 | pH Paper ID : NA | | | |
| Perservative : | | | | |
| | Check Points | Yes | No | N/A |
| 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] 7/19/2023

Received by : [REDACTED]

Check in by/date : [REDACTED] / 07/19/2023

ab-s005-0321

RECORD

Gilbane Federal,
1501 W Fountainhead Parkway, Tempe AZ 85282

Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation

Laboratory: A&B Labs

Event: Parcel C Asbestos

Project Number: J31000600

POC:

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

Page 1 of 4

Equipment:

Event: Parcel C Asbestos

Analytical Test Method

Asbestos

1

01A
02A
03A

| Sample ID | Matrix | Date | Time | Samp Init. | | | | | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments |
|----------------|--------|------------|------|------------|--|--|--|--|-------------|-------------|----------------|------|--------|----------|
| | | | | | | | | | | | Top - Bottom | | | |
| 1 FBC-071023 | AQ | 07/10/2023 | 0800 | x | | | | | FBC | FB1 | 0.00 | 0.00 | 1 | |
| 2 MSC01-071023 | A | 07/11/2023 | 0640 | x | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 3 MSC02-071023 | A | 07/11/2023 | 0653 | x | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
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| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|------|--------------------------|---------|------|-------------------------------------------------------------|
| [REDACTED] | 7/18/23 | 1200 | Fedex | 7/18/23 | 1200 | Shipping Date: 07/18/23 / FEDEX 7726 2739 2570 |
| FEDEX | 7/19/23 | 9:07 | [REDACTED] | 7/19/23 | 9:07 | Received by Laboratory: (Signature, Date, Time) & condition |

24.1°C
125

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # [REDACTED] 071823ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 | Analytical Test Method | 7/18/23 | Code | Matrix | Container/Preservative | Filter/No Preservatives | Page 2 of 4 |
| A | Air | | | | | | | | |
| AQ | Air Quality Control Matrix | | | | | | | | |
| Code | Container/Preservative | | | | | | | | |
| 1 | Filter/No Preservatives | | | | | | | | |

| Equipment: | | | | | | 1 | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments |
|--------------------------|--------|------------|------|------------|---|---|--------------|-------------|----------------|------|--------|----------|
| Event: Parcel C Asbestos | | | | | | | Top - Bottom | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | | | | | | | | |
| 1 MSC01-071123 | A | 07/12/2023 | 0638 | [REDACTED] | x | | MSC01 | N1 | 0.00 | 0.00 | 1 | 04A |
| 2 MSC02-071123 | A | 07/12/2023 | 0650 | [REDACTED] | x | | MSC02 | N1 | 0.00 | 0.00 | 1 | 05A |
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Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|------|--------------------------|---------|------|-------------------------------------------------------------|
| [REDACTED] | 7/18/23 | 1200 | Fedex | 7/18/23 | 1200 | Shipping Date: 07/18/23 / FEDEX 7726 2739 2570 |
| FED EX | 7/19/23 | 9:07 | [REDACTED] | 7/19/23 | 9:07 | Received by Laboratory: (Signature, Date, Time) & condition |

24.1 °C
185

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # [REDACTED] 071823ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 3 of 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <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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| AQ | Air Quality Control Matrix | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1 | Filter/No Preservatives | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th colspan="5">Equipment:</th> <th colspan="5">Analytical Test Method</th> </tr> <tr> <td colspan="5">Event: Parcel C Asbestos</td> <td>1</td> <td colspan="5"></td> </tr> <tr> <th>Sample ID</th> <th>Matrix</th> <th>Date</th> <th>Time</th> <th>Samp Init.</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Location ID</th> <th>Sample Type</th> <th>Depth (ft bgs)</th> <th>Cooler</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>1 MSC01-071223</td> <td>A</td> <td>07/13/2023</td> <td>0653</td> <td>[REDACTED]</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> <td>MSC01</td> <td>N1</td> <td>0.00</td> <td>0.00</td> <td>1</td> </tr> <tr> <td>2 MSC02-071223</td> <td>A</td> <td>07/13/2023</td> <td>0704</td> <td>[REDACTED]</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> <td>MSC02</td> <td>N1</td> <td>0.00</td> <td>0.00</td> <td>1</td> </tr> <tr> <td>3</td> <td></td> </tr> <tr> <td>4</td> <td></td> </tr> <tr> <td>5</td> <td></td> </tr> <tr> <td>6</td> <td></td> </tr> <tr> <td>7</td> <td></td> </tr> <tr> <td>8</td> <td></td> </tr> <tr> <td>9</td> <td></td> </tr> <tr> <td>10</td> <td></td> </tr> <tr> <td>11</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | Equipment: | | | | | Analytical Test Method | | | | | Event: Parcel C Asbestos | | | | | 1 | | | | | | Sample ID | Matrix | Date | Time | Samp Init. | | | | | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | 1 MSC01-071223 | A | 07/13/2023 | 0653 | [REDACTED] | x | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | 2 MSC02-071223 | A | 07/13/2023 | 0704 | [REDACTED] | x | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | 3 | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 5 | | | | | | | | | | | | | | | 6 | | | | | | | | | | | | | | | 7 | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | 9 | | | | | | | | | | | | | | | 10 | | | | | | | | | | | | | | | 11 | | | | | | | | | | | | | | | |
| Equipment: | | | | | Analytical Test Method | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Turnaround Time: 7 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by: (Signature) | | Date | Time | Received by: (Signature) | | | Date | Time | Shipping Date / Carrier / Airbill Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| [REDACTED] | | 7/18/23 | 1200 | Fedex | | | 7/18/23 | 1200 | Shipping Date: 07/18/23 / FEDEX 7726 2739 2570 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FEDEX | | 7/19/23 | 9:07 | [REDACTED] | | | 7/19/23 | 9:07 | Received by Laboratory: (Signature, Date, Time) & condition | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.1 °e 125 [REDACTED] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # 071823ASBC



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

Page 4 of 4

Equipment

08A
09A

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|-------|--------------------------|---------|-------|-------------------------------------------------------------|
| [REDACTED] | 7/18/23 | 12:00 | FedEx | 7/18/23 | 12:00 | Shipping Date: 07/18/23 / FEDEX 7726 2739 2570 |
| FED EX | 7/19/23 | 9:07 | [REDACTED] | 7/19/23 | 9:07 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | |

24.1 °C
1R5

COC ID # [REDACTED]071823ASBC

Flow Rate, Total Time

| Sample ID | End Date | End Time | Flow Rate (L/min), Total Time (mins) |
|--------------|----------|------------|--------------------------------------|
| FBC-071023 | 7/10/23 | 8:00:00 AM | N/A |
| MSC01-071023 | 7/11/23 | 6:40:00 AM | 3.4; 1403 |
| MSC02-071023 | 7/11/23 | 6:53:00 AM | 3.6; 1433 |
| MSC01-071123 | 7/12/23 | 6:38:00 AM | 3.3; 1437- |
| MSC02-071123 | 7/12/23 | 6:50:00 AM | 3.6; 1435 |
| MSC01-071223 | 7/13/23 | 6:53:00 AM | 3.6; 1454 |
| MSC02-071223 | 7/13/23 | 7:04:00 AM | 3.5; 1453 |
| MSC01-071323 | 7/13/23 | 2:55:00 PM | 3.6; 480 |
| MSC02-071323 | 7/13/23 | 2:56:00 PM | 3.4; 470 |

ORIGIN ID: ICCA [REDACTED]

GEO-AIS
200 FISHER STREET

SAN FRANCISCO, CA 94124
UNITED STATES US

TO [REDACTED]

SHIP DATE: 13JUL23
ACTWTG: 1.00 LB
CAD: 254128867/INET4610

BILL SENDER

A&B LABS
10100 EAST FREEWAY, SUITE 100

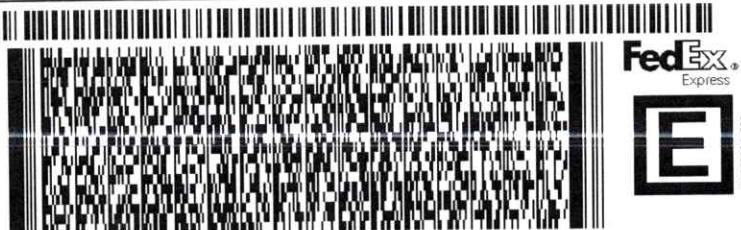
HOUSTON TX 77029

(713) 453-6060

REF: J31000 900 02 04 05

INV
PO

DEPT:



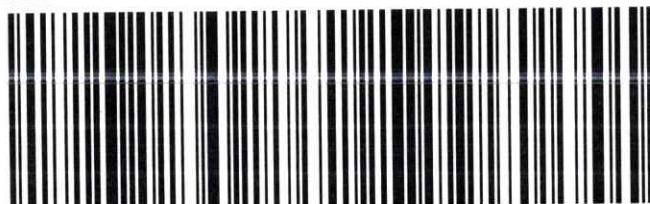
583346AE4FED

FRI - 14 JUL 4:30P
STANDARD OVERNIGHT

TRK#
0201 7726 2739 2570

AB HBYA

77029
TX-US IAH



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Laboratory Analysis Report

Job ID : 23072475



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

| | | |
|--------------------|-----------------------------------------------------------|----------------------------------|
| Report To : | Client Name: GES - ASRC Industrial | Total Number of Pages: 9 |
| | Attn: [REDACTED] | P.O.#. : |
| | Client Address: 1501 West Fountainhead Parkway, Ste. #550 | Date Received : 07/26/2023 09:10 |
| | 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-071723 | 7/17/2023 8:00 | Cassette | 23072475.01 |
| MSC01-071723 | 7/18/2023 6:41 | Cassette | 23072475.02 |
| MSC02-071723 | 7/18/2023 6:51 | Cassette | 23072475.03 |
| MSC01-071823 | 7/19/2023 6:43 | Cassette | 23072475.04 |
| MSC02-071823 | 7/19/2023 6:54 | Cassette | 23072475.05 |
| MSC01-071923 | 7/20/2023 6:39 | Cassette | 23072475.06 |
| MSC02-071923 | 7/20/2023 6:58 | Cassette | 23072475.07 |
| MSC01-072023 | 7/20/2023 15:38 | Cassette | 23072475.08 |
| MSC02-072023 | 7/20/2023 15:35 | Cassette | 23072475.09 |

[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

8/2/2023



**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 8/2/2023

Job ID : 23072475
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 |
| 23072475.01 | FBC-071723 | 07/17/2023 | | | | | 0 | 100 | 8 | 10.191 | 0.000 | | 08/02/23 | | |
| 23072475.02 | MSC01-071723 | 07/18/2023 | Area | 3.7 | | | 1430 | 5291 | 100 | 26.0 | 33.121 | 0.002 | 08/02/23 | | |
| 23072475.03 | MSC02-071723 | 07/18/2023 | Area | 3.6 | | | 1430 | 5148 | 100 | 10.5 | 13.376 | 0.001 | 08/02/23 | | |
| 23072475.04 | MSC01-071823 | 07/19/2023 | Area | 3.4 | | | 1441 | 4899. | 100 | 17.5 | 22.293 | 0.002 | 08/02/23 | | |
| 23072475.05 | MSC02-071823 | 07/19/2023 | Area | 3.3 | | | 1441 | 4755. | 100 | 9.5 | 12.102 | 0.001 | 08/02/23 | | |
| 23072475.06 | MSC01-071923 | 07/20/2023 | Area | 3.5 | | | 1434 | 5019 | 100 | 5.5 | 7.006 | 0.001 | 08/02/23 | | |
| 23072475.07 | MSC02-071923 | 07/20/2023 | Area | 3.4 | | | 1442 | 4902. | 100 | 6.5 | 8.280 | 0.001 | 08/02/23 | | |
| 23072475.08 | MSC01-072023 | 07/20/2023 | Area | 3.6 | | | 537 | 1933. | 100 | 7.5 | 9.554 | 0.002 | 08/02/23 | | |
| 23072475.09 | MSC02-072023 | 07/20/2023 | Area | 3.4 | | | 515 | 1751 | 100 | 10.0 | 12.739 | 0.003 | 08/02/23 | | |

Detection limit of this method is estimated at 7 f/mm2 (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 : 23072475 | Date Received : 07/26/2023 | Time Received : 9:10AM | | | | | | | | | | |
|--------------------------------------------|-----------------------------------------------------|--------------------------------|-------------------------------|---------------------------------|---------------------------------|--------------------------------|----------------------------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Client Name : GES - ASRC Industrial | | | | | | | | | | | | |
| Temperature : 24.4°C | Sample pH : N/A | | | | | | | | | | | |
| Thermometer ID : IR5 | pH Paper ID : N/A | | | | | | | | | | | |
| Perservative : | | | | | | | | | | | | |
| | Check Points | Yes | No | N/A | | | | | | | | |
| 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 9-Black Cassettes. No cooler was received, however samples are received in a box with a custody seal. ~ [REDACTED] 07/26/2023

Received by : [REDACTED]

Check in by/date : [REDACTED] / 07/26/2023

ab-s005-0321

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # 072523ASBC



| | | |
|-------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------|
| 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.

Job ID:23072475

07/28/2023 GES - ASRC Industrial ACH

Equipment:

Event: Parcel C Asbestos

Analytical Test Method

Asbestos

| | |
|-----------|----------------------------|
| Code | Matrix |
| A | Air |
| AQ | Air Quality Control Matrix |

| | |
|------|-------------------------|
| Code | Container/Preservative |
| 1 | Filter/No Preservatives |

Page 1 of 4

01A
02A
03A

3

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|-------|--------------------------|---------|-------|-------------------------------------------------------------|
| [REDACTED] | 7/25/23 | 16:05 | Fred G. | 7/25/23 | 16:05 | Shipping Date: 07/25/23 / FEDEX 7727 6835 4517 |
| FEDEX | 7/26/23 | 09:10 | [REDACTED] | 7/26/23 | 09:10 | Received by Laboratory: (Signature, Date, Time) & condition |

24.4°C

105

**CHAIN-OF-CUSTODY
RECORD**

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

COC ID # 072523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 |
| A | Air |
| AQ | Air Quality Control Matrix |

Page 2 of 4

Equipment:

Analytical Test Method

Asbestolog

| | |
|------|-------------------------|
| Code | Container/Preservative |
| † | Filter/No Preservatives |

Event: Parcel C Asbestos

1

7(23)23

Turnaround Time: 7 days

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|-------|--------------------------|---------|-------|-------------------------------------------------------------|
| [REDACTED] | 7/25/23 | 16:00 | FEDEX | 7/25/23 | 16:00 | Shipping Date: 07/25/23 / FEDEX 7727 6835 4517 |
| FEDEX | 7/26/23 | 09:10 | [REDACTED] | 7/26/23 | 09:10 | Received by Laboratory: (Signature, Date, Time) & condition |

24.4°C

105

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # 072523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation | Laboratory: A&B Labs | Event: Parcel C Asbestos |
| Project Number: J31000600 | POC: | |
| 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: | | | | | | | | | | | |
| Event: Parcel C Asbestos | | | | | 1 | | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | |
| 1 MSC01-071923 | A | 07/20/2023 | 0639 | x | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 2 MSC02-071923 | A | 07/20/2023 | 0658 | x | | MSC02 | N1 | 0.00 | 0.00 | 1 | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |

Turnaround Time: 7 days

| Renounced by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|---------------------------|---------|-------|--------------------------|---------|-------|-------------------------------------------------------------|
| [Redacted] | 7/25/23 | 1600 | FedEx | 7/25/23 | 1600 | Shipping Date: 07/25/23 / FEDEX 7727 6835 4517 |
| FED-EX | 7/26/23 | 09:10 | [Redacted] | 7/26/23 | 09:10 | Received by Laboratory: (Signature, Date, Time) & condition |

24.4.0

105

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal
1501 W Fountainhead Parkway, Tempe AZ 85282

COC ID # [REDACTED] 072523ASBC



| | | |
|------------------------------------------------------------------------|---------------------------------------------------|--------------------------|
| 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 4 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 | Analytical Test Method | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | | |
| | | | | | | | | | Top - Bottom | | | | | |
| 1 MSC01-072023 | A | 07/20/2023 | 1538 | [REDACTED] | x | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | |
| 2 MSC02-072023 | A | 07/20/2023 | 1535 | [REDACTED] | x | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| Turnaround Time: 7 days | | | | | | | | | | | | | | |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | | | | Date | Time | Shipping Date / Carrier / Airbill Number | | | | | |
| [REDACTED] | 7/25/23 | 1600 | FedEx | | | | 7/25/23 | 1600 | Shipping Date: 07/25/23 / FEDEX 7727 6835 4517 | | | | | |
| FED EX | 7/26/23 | 09:10 | [REDACTED] | | | | 7/26/23 | 09:10 | Received by Laboratory: (Signature, Date, Time) & condition | | | | | |
| | | | | | | | | | | | | | | |

24.4 °C

1R5

Flow Rate, Total Time

| Sample ID | End Date | End Time | Flow Rate (L/min), Total Time (mins) |
|--------------|----------|------------|--------------------------------------|
| FBC-071723 | 7/17/23 | 8:00:00 AM | N/A |
| MSC01-071723 | 7/18/23 | 6:41:00 AM | 3.7; 1430 |
| MSC02-071723 | 7/18/23 | 6:51:00 AM | 3.6; 1430 |
| MSC01-071823 | 7/19/23 | 6:43:00 AM | 3.4; 1441 |
| MSC02-071823 | 7/19/23 | 6:54:00 AM | 3.3; 1441 |
| MSC01-071923 | 7/20/23 | 6:39:00 AM | 3.5; 1434 |
| MSC02-071923 | 7/20/23 | 6:58:00 AM | 3.4; 1442 |
| MSC01-072023 | 7/20/23 | 3:38:00 PM | 3.6; 537 |
| MSC02-072023 | 7/20/23 | 3:35:00 PM | 3.4; 515 |

ORIGIN ID: ICCA [REDACTED]

GES-AIS
200 FISHER STREET

SAN FRANCISCO, CA 94124
UNITED STATES US

TO [REDACTED]

SHIP DATE: 25JUL23
ACTWGT: 1.00 LB
CAD: 254128867/INET4640

BILL SENDER

A&B LABS
10100 EAST FREEWAY, SUITE 100

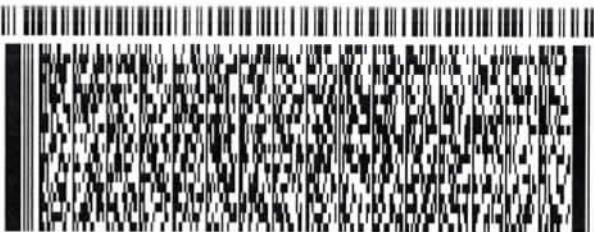
HOUSTON TX 77029

(713) 453-6060

REF: J31000 600 02 04 05

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PO

DEPT

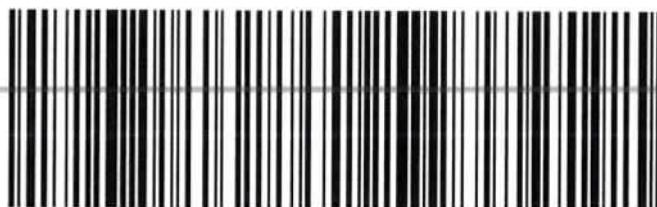


TRK#
0201 7727 6835 4517

WED - 26 JUL 4:30P
STANDARD OVERNIGHT

AB HBYA

77029
TX-US IAH



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- 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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ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-23-01241

GES-AIS, LLC
[REDACTED]

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

COC Number: [REDACTED] 060623RADC

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.

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. A statement of uncertainty for each analysis is available upon request. 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 | LA011312023-1 |
| New Jersey | LA009 |
| New York | 66780 (NPW) / 66781 (SHW) |
| Texas | T104704447-22-18 |
| Utah | LA011312022-13 |
| 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 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-053023 | ARS1-23-01241-001 |
| MSC01-053023 | ARS1-23-01241-002 |
| MSC02-053023 | ARS1-23-01241-003 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|----------------|---------------|--------------|-------------|----------------|--------------------|
| 001 | 05/30/23 08:00 | 06/07/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 001 | 05/30/23 08:00 | 06/07/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 001 | 05/30/23 08:00 | 06/07/23 | GAM-A-AF | As Received | NA | 06/16/23 16:06 |
| 001 | 05/30/23 08:00 | 06/07/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |
| 002 | 06/01/23 15:22 | 06/07/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 002 | 06/01/23 15:22 | 06/07/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 002 | 06/01/23 15:22 | 06/07/23 | GAM-A-AF | As Received | NA | 06/16/23 16:08 |
| 002 | 06/01/23 15:22 | 06/07/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |
| 003 | 06/01/23 15:24 | 06/07/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 003 | 06/01/23 15:24 | 06/07/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 003 | 06/01/23 15:24 | 06/07/23 | GAM-A-AF | As Received | NA | 06/20/23 14:09 |
| 003 | 06/01/23 15:24 | 06/07/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |

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-B23-01024 has elevated MDA for Pu-239/240 with ACT of -1.321E-7 uCi/filter, MDA of 1.805E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01025 has elevated MDA for Th-232 with ACT of 0.000 uCi/filter, MDA of 6.017E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -6.715E-5 uCi/filter, MDA of 3.018E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-01024 has elevated MDA for Pu-239/240 with ACT of 3.019E-8 uCi/filter, MDA of 1.096E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01025 has elevated MDA for Th-232 with ACT of 5.498E-8 uCi/filter, MDA of 5.920E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -4.202E-5 uCi/filter, MDA of 1.804E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01024 has elevated MDA for Pu-239/240 with ACT of -1.277E-8 uCi/filter, MDA of 9.008E-8 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -7.059E-6 uCi/filter, MDA of 1.583E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-01024: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01025: 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 |

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/MDC 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 ingrowth 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-03-RC); 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). 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). 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: ARS1-23-01241**Client Sample ID:** FBC-053023**Sample Collection Date:** 05/30/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01241-001**Date Received:** 06/07/23**Report Date:** 07/03/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.321E-7 | 7.929E-8 | 1.805E-7 | 8.130E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 61.9% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-04

| 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 | 2.682E-8 | 6.017E-8 | 2.251E-8 | 1.4E-08 | U | uCi/filter | 06/30/23 3:12 | [REDACTED] | 73.1% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -5.210E-7 | 1.708E-6 | 1.748E-6 | 8.740E-7 | 0.00024 | U | uCi/filter | 06/16/23 16:06 | [REDACTED] | N/A |
| Cs-137 | -6.418E-7 | 1.487E-6 | 1.662E-6 | 8.310E-7 | 0.00048 | U | uCi/filter | 06/16/23 16:06 | [REDACTED] | N/A |
| Ra-226 | -6.715E-5 | 2.287E-5 | 3.018E-5 | 1.509E-5 | 4.4E-06 | U | uCi/filter | 06/16/23 16:06 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.332E-6 | 2.413E-6 | 4.139E-6 | 1.913E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 92.2% |



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ARS Sample Delivery Group: ARS1-23-01241**Client Sample ID:** MSC01-053023**Sample Collection Date:** 06/01/23 15:22**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01241-002**Date Received:** 06/07/23**Report Date:** 07/03/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | 3.019E-8 | 6.161E-8 | 1.096E-7 | 4.659E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 69.0% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 5.498E-8 | 4.361E-8 | 5.920E-8 | 2.215E-8 | 1.4E-08 | U | uCi/filter | 06/30/23 3:12 | [REDACTED] | 75.8% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 6.703E-6 | 2.080E-6 | 2.517E-6 | 1.259E-6 | NP | | uCi/filter | 06/16/23 16:08 | [REDACTED] | N/A |
| Co-60 | 3.843E-7 | 9.601E-7 | 9.820E-7 | 4.910E-7 | 0.00024 | U | uCi/filter | 06/16/23 16:08 | [REDACTED] | N/A |
| Cs-137 | -5.209E-7 | 8.931E-7 | 9.942E-7 | 4.971E-7 | 0.00048 | U | uCi/filter | 06/16/23 16:08 | [REDACTED] | N/A |
| Ra-226 | -4.202E-5 | 1.513E-5 | 1.804E-5 | 9.020E-6 | 4.4E-06 | U | uCi/filter | 06/16/23 16:08 | [REDACTED] | N/A |
| Ra-228 | 6.703E-6 | 2.080E-6 | 2.517E-6 | 1.259E-6 | NP | | uCi/filter | 06/16/23 16:08 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 2.655E-6 | 2.420E-6 | 3.892E-6 | 1.796E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 96.5% |



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ARS Sample Delivery Group: ARS1-23-01241**Client Sample ID:** MSC02-053023**Sample Collection Date:** 06/01/23 15:24**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01241-003**Date Received:** 06/07/23**Report Date:** 07/03/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.277E-8 | 3.961E-8 | 9.008E-8 | 3.639E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 67.6% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 5.898E-8 | 3.855E-8 | 3.948E-8 | 1.247E-8 | 1.4E-08 | | uCi/filter | 06/30/23 3:12 | [REDACTED] | 80.5% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -6.135E-7 | 1.203E-6 | 1.220E-6 | 6.100E-7 | 0.00024 | U | uCi/filter | 06/20/23 14:09 | [REDACTED] | N/A |
| Cs-137 | -1.595E-7 | 7.795E-7 | 8.780E-7 | 4.390E-7 | 0.00048 | U | uCi/filter | 06/20/23 14:09 | [REDACTED] | N/A |
| Ra-226 | -7.059E-6 | 1.619E-5 | 1.583E-5 | 7.915E-6 | 4.4E-06 | U | uCi/filter | 06/20/23 14:09 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.753E-6 | 2.298E-6 | 3.849E-6 | 1.783E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 94.8% |



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ARS Aleut Analytical, LLC

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QC Summary



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QC Sample Results

Analytical Batch: ARS1-B23-00998

Lab Sample ID: ARS1-B23-00998-01

Method: EPA 901.1M

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/21/23 7:33

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Am-241 | 33.065 | 30.364 | | uCi/filter | 91.8 | 75 - 125 |
| Co-60 | 20.928 | 21.485 | | uCi/filter | 102.7 | 75 - 125 |
| Cs-137 | 12.996 | 12.851 | | uCi/filter | 98.9 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-00998

Sample Type: LCSD

Lab Sample ID: ARS1-B23-00998-02

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 06/21/23 7:45

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Am-241 | 33.065 | 30.639 | | uCi/filter | 92.7 | 75 - 125 | 0.9 | 25 | 0.161 | 3 |
| Co-60 | 20.928 | 20.239 | | uCi/filter | 96.7 | 75 - 125 | 6.0 | 25 | 1.401 | 3 |
| Cs-137 | 12.996 | 13.185 | | uCi/filter | 101.5 | 75 - 125 | 2.6 | 25 | 0.659 | 3 |



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(225) 228-1394

QC Sample Results

Analytical Batch: ARS1-B23-00998

Sample Type: MBL

Lab Sample ID: ARS1-B23-00998-03

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 06/20/23 14:08

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|-------|----------|------|----------------|
| Ac-228 | 8.424E-4 | 4.981E-4 | 0.006 | 0.003 | U | uCi/filter |
| Am-241 | -2.508E-4 | 0.001 | 0.002 | 0.001 | U | uCi/filter |
| Bi-212 | -0.007 | 0.011 | 0.013 | 0.006 | U | uCi/filter |
| Bi-214 | -0.006 | 0.004 | 0.004 | 0.002 | U | uCi/filter |
| Co-60 | 8.034E-4 | 0.001 | 0.001 | 6.800E-4 | U | uCi/filter |
| Cs-137 | -4.348E-4 | 0.001 | 0.002 | 8.300E-4 | U | uCi/filter |
| Eu-152 | 4.087E-4 | 0.001 | 0.002 | 8.700E-4 | U | uCi/filter |
| Eu-154 | -5.489E-4 | 0.001 | 0.001 | 7.250E-4 | U | uCi/filter |
| K-40 | -0.005 | 0.023 | 0.023 | 0.012 | U | uCi/filter |
| Pa-234 | 3.523E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-210 | 0.003 | 0.015 | 0.018 | 0.009 | U | uCi/filter |
| Pb-212 | -0.002 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-214 | -0.003 | 0.003 | 0.003 | 0.002 | U | uCi/filter |
| Ra-226 | -0.083 | 0.032 | 0.031 | 0.015 | U | uCi/filter |
| Ra-228 | 8.424E-4 | 4.981E-4 | 0.006 | 0.003 | U | uCi/filter |
| Th-234 | 0.007 | 0.015 | 0.017 | 0.008 | U | uCi/filter |
| Tl-208 | 9.017E-4 | 0.002 | 0.002 | 7.700E-4 | U | uCi/filter |
| U-235 | -0.005 | 0.006 | 0.007 | 0.003 | U | uCi/filter |
| U-238 | 0.007 | 0.015 | 0.017 | 0.008 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01241

Analytical Batch: ARS1-B23-00998

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|------------|-------------|
| ARS1-B23-00998-01 | | Lab Control Sample | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-02 | | Lab Control Sample Duplicate | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-03 | | Method Blank | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-04 | ARS1-23-01241-001 | FBC-053023 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-05 | ARS1-23-01241-002 | MSC01-053023 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-06 | ARS1-23-01241-003 | MSC02-053023 | Air Filter | EPA 901.1M | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-01

Method: Eichrom ACW03

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|------------|-------------|-----------------|------|----------------|-------|--------------|
| Pu-239/240 | 7.782E-6 | 7.480E-6 | | uCi/filter | 96.1 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-02

Method: Eichrom ACW03

Sample Type: LCSD

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|------------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Pu-239/240 | 7.852E-6 | 7.367E-6 | | uCi/filter | 93.8 | 75 - 125 | 1.5 | 25 | 0.170 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-03

Method: Eichrom ACW03

Sample Type: MBL

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|------------|-----------------|-------------|----------|----------|------|----------------|
| Pu-238 | -5.104E-8 | 7.733E-8 | 1.597E-7 | 7.118E-8 | U | uCi/filter |
| Pu-239/240 | -3.828E-8 | 5.325E-8 | 1.201E-7 | 5.141E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01241

Analytical Batch: ARS1-B23-01024

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-B23-01024-01 | | Lab Control Sample | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-03 | | Method Blank | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-04 | ARS1-23-01241-001 | FBC-053023 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-05 | ARS1-23-01241-002 | MSC01-053023 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-06 | ARS1-23-01241-003 | MSC02-053023 | Air Filter | Eichrom ACW03 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Lab Sample ID: ARS1-B23-01025-01

Method: Eichrom ACW10

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/30/23 3:12

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Th-230 | 5.243E-6 | 6.062E-6 | | uCi/filter | 115.6 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01025-02

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 06/30/23 3:12

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Th-230 | 5.237E-6 | 5.658E-6 | | uCi/filter | 108.0 | 75 - 125 | 6.9 | 25 | 0.762 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Sample Type: MBL

Lab Sample ID: ARS1-B23-01025-03

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 06/30/23 3:12

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| Th-228 | 5.701E-9 | 8.437E-8 | 1.558E-7 | 7.018E-8 | U | uCi/filter |
| Th-230 | 3.790E-7 | 1.098E-7 | 8.497E-8 | 3.482E-8 | | uCi/filter |
| Th-232 | 0.000 | 2.213E-8 | 5.245E-8 | 1.857E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01241

Analytical Batch: ARS1-B23-01025

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-B23-01025-01 | | Lab Control Sample | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-03 | | Method Blank | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-04 | ARS1-23-01241-001 | FBC-053023 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-05 | ARS1-23-01241-002 | MSC01-053023 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-06 | ARS1-23-01241-003 | MSC02-053023 | Air Filter | Eichrom ACW10 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Lab Sample ID: ARS1-B23-01026-01

Method: Eichrom SRW01

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/30/23 11:27

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| SR-90 | 1.988E-5 | 1.902E-5 | | uCi/filter | 95.7 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01026-02

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 06/30/23 11:27

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| SR-90 | 1.988E-5 | 1.961E-5 | | uCi/filter | 98.7 | 75 - 125 | 3.1 | 25 | 0.277 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Sample Type: MBL

Lab Sample ID: ARS1-B23-01026-03

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 06/30/23 11:27

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| SR-90 | 1.350E-6 | 2.677E-6 | 4.612E-6 | 2.136E-6 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01241

Analytical Batch: ARS1-B23-01026

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|---------------|-------------|
| ARS1-B23-01026-01 | | Lab Control Sample | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-03 | | Method Blank | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-04 | ARS1-23-01241-001 | FBC-053023 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-05 | ARS1-23-01241-002 | MSC01-053023 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-06 | ARS1-23-01241-003 | MSC02-053023 | Air Filter | Eichrom SRW01 | N/A |



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Analytical Reports

for

GES-AIS, LLC

Batch QC



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------------|
| Analytical Batch | ARS1-B23-00998 |
| SDG | ARS1-23-01241 |
| 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 | 06/21/23 07:33 | Analysis Technician | █ █ █ █ █ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|-------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-00998-01 | LCS | AM-241 | 30.364 | 2.351 | 33.065 | 91.8 | 0.132 |
| ARS1-B23-00998-01 | LCS | CO-60 | 21.485 | 1.172 | 20.928 | 102.7 | 0.318 |
| ARS1-B23-00998-01 | LCS | CS-137 | 12.851 | 0.694 | 12.996 | 98.9 | 0.070 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/21/23 07:45 | Analysis Technician | █ █ █ █ █ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| AM-241 | 30.364 | 2.351 | 30.639 | 2.372 | 0.161 | 0.9 | |
| CO-60 | 21.485 | 1.172 | 20.239 | 1.290 | 1.401 | 6.0 | |
| CS-137 | 12.851 | 0.694 | 13.185 | 0.711 | 0.659 | 2.6 | |

| Method Blank | | | Analysis Date | 06/20/23 14:08 | Analysis Technician | █ █ █ █ █ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|-----------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-00998-03 | MBL | AC-228 | 8.424E-4 | 4.981E-4 | 0.006 | U | |
| ARS1-B23-00998-03 | MBL | AM-241 | -2.508E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | BI-212 | -0.007 | 0.011 | 0.013 | U | |
| ARS1-B23-00998-03 | MBL | BI-214 | -0.006 | 0.004 | 0.004 | U | |
| ARS1-B23-00998-03 | MBL | CO-60 | 8.034E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-00998-03 | MBL | CS-137 | -4.348E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | EU-152 | 4.087E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | EU-154 | -5.489E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-00998-03 | MBL | K-40 | -0.005 | 0.023 | 0.023 | U | |
| ARS1-B23-00998-03 | MBL | PA-234 | 3.523E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | PB-210 | 0.003 | 0.015 | 0.018 | U | |
| ARS1-B23-00998-03 | MBL | PB-212 | -0.002 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | PB-214 | -0.003 | 0.003 | 0.003 | U | |
| ARS1-B23-00998-03 | MBL | RA-226 | -0.083 | 0.032 | 0.031 | U | |
| ARS1-B23-00998-03 | MBL | RA-228 | 8.424E-4 | 4.981E-4 | 0.006 | U | |
| ARS1-B23-00998-03 | MBL | TH-234 | 0.007 | 0.015 | 0.017 | U | |
| ARS1-B23-00998-03 | MBL | TL-208 | 9.017E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | U-235 | -0.005 | 0.006 | 0.007 | U | |
| ARS1-B23-00998-03 | MBL | U-238 | 0.007 | 0.015 | 0.017 | U | |



QC Results per Analytical Batch

| | |
|-------------------------|------------------------------------------------------------------------------------|
| Analytical Batch | ARS1-B23-01024 |
| SDG | ARS1-23-01241 |
| 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 | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|---------------------------|---------|------------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01024-01 | LCS | PU-239/240 | 7.480E-6 | 9.322E-7 | 7.782E-6 | 96.1 | 4.280E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| PU-239/240 | 7.480E-6 | 9.322E-7 | 7.367E-6 | 9.216E-7 | 0.170 | 1.5 | |

| Method Blank | | | Analysis Date | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|--------------------------|---------|------------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01024-03 | MBL | PU-238 | -5.104E-8 | 7.733E-8 | 1.597E-7 | U | |
| ARS1-B23-01024-03 | MBL | PU-239/240 | -3.828E-8 | 5.325E-8 | 1.201E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------|
| Analytical Batch | ARS1-B23-01025 |
| SDG | ARS1-23-01241 |
| 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 | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01025-01 | LCS | TH-230 | 6.062E-6 | 7.617E-7 | 5.243E-6 | 115.6 | 3.928E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| TH-230 | 6.062E-6 | 7.617E-7 | 5.658E-6 | 7.103E-7 | 0.762 | 6.9 | |

| Method Blank | | | Analysis Date | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01025-03 | MBL | TH-228 | 5.701E-9 | 8.437E-8 | 1.558E-7 | U | |
| ARS1-B23-01025-03 | MBL | TH-230 | 3.790E-7 | 1.098E-7 | 8.497E-8 | | |
| ARS1-B23-01025-03 | MBL | TH-232 | 0.000 | 2.213E-8 | 5.245E-8 | U | |



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------|
| Analytical Batch | ARS1-B23-01026 |
| SDG | ARS1-23-01241 |
| 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 | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01026-01 | LCS | SR-90 | 1.902E-5 | 2.948E-6 | 1.988E-5 | 95.7 | 6.725E-7 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| SR-90 | 1.902E-5 | 2.948E-6 | 1.961E-5 | 3.021E-6 | 0.277 | 3.1 | |

| Method Blank | | | Analysis Date | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01026-03 | MBL | SR-90 | 1.350E-6 | 2.677E-6 | 4.612E-6 | U | |



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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 # █████ 060623RADC



Event: Parcel C Air Monitoring
RAD

| Project Name: Hunters Point Shipyard, Parcel C Removal Site Evaluation | | | | | Laboratory: ARS Aleut Analytical (AAA), Port Allen, LA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|--------|--------|-----------------------------------------------------------|------------|------------|---------------|------------|------------------------|-------------|---------------------|--|--------|-----------------------------|-----|--------|---------------|-----|------|------|--------|----|-------|----|------------|------------|------------|------------|------------|----|------|------|---|---|------------|------------|------------|------------|------------|----|----------------------------|--|--|--|------------|------------|------------|------------|------------|------|------------------------|--|--|--|--|--|--|--|--|---|------------------------------|--|--|--|--|--|--|--|--|----|--------------------------------|--|--|--|--|--|--|--|--|
| Project Number: J310000600 | | | | | POC: ██████████ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WBS Code: J310000600 | | | | | Ship to: 2609 North River Road, Port Allen, LA 70767-3469 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comments: Equipment: Event: Parcel C Air Monitoring RAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th colspan="2">Analytical Test Method</th> <th colspan="3">E901.1 - Gamma Spec</th> <th colspan="3">RC0240 - Pu and Th Isotopes</th> <th colspan="3">SR02RC - Sr90</th> </tr> <tr> <th>Code</th> <th>Matrix</th> <th>15</th> <th>15</th> <th>5</th> <th>██████████</th> <th>██████████</th> <th>██████████</th> <th>██████████</th> <th>██████████</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Air</td> <td>X</td> <td>X</td> <td>X</td> <td>██████████</td> <td>██████████</td> <td>██████████</td> <td>██████████</td> <td>██████████</td> </tr> <tr> <td>AQ</td> <td>Air Quality Control Matrix</td> <td></td> <td></td> <td></td> <td>██████████</td> <td>██████████</td> <td>██████████</td> <td>██████████</td> <td>██████████</td> </tr> <tr> <td>Code</td> <td>Container/Preservative</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>1x 1-L Plastic, HNO3, pH < 2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>1x 250-mL Plastic, 4 Degrees C</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | Analytical Test Method | | E901.1 - Gamma Spec | | | RC0240 - Pu and Th Isotopes | | | SR02RC - Sr90 | | | Code | Matrix | 15 | 15 | 5 | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | A | Air | X | X | X | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | AQ | Air Quality Control Matrix | | | | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | Code | Container/Preservative | | | | | | | | | 5 | 1x 1-L Plastic, HNO3, pH < 2 | | | | | | | | | 15 | 1x 250-mL Plastic, 4 Degrees C | | | | | | | | |
| Analytical Test Method | | E901.1 - Gamma Spec | | | RC0240 - Pu and Th Isotopes | | | SR02RC - Sr90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Code | Matrix | 15 | 15 | 5 | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | Air | X | X | X | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AQ | Air Quality Control Matrix | | | | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Code | Container/Preservative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 1x 1-L Plastic, HNO3, pH < 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 1x 250-mL Plastic, 4 Degrees C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th rowspan="2">Location ID</th> <th rowspan="2">Sample Type</th> <th colspan="2">Depth (ft bgs)</th> <th rowspan="2">Cooler</th> <th rowspan="2">Comments</th> </tr> <tr> <th>Top</th> <th>Bottom</th> </tr> </thead> <tbody> <tr> <td>FIELDQC</td> <td>FB2</td> <td>0.00</td> <td>0.00</td> <td>1</td> <td></td> </tr> <tr> <td>MSC01</td> <td>N1</td> <td>0.00</td> <td>0.00</td> <td>1</td> <td></td> </tr> <tr> <td>MSC02</td> <td>N1</td> <td>0.00</td> <td>0.00</td> <td>1</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | Top | Bottom | FIELDQC | FB2 | 0.00 | 0.00 | 1 | | MSC01 | N1 | 0.00 | 0.00 | 1 | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Top | Bottom | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIELDQC | FB2 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turnaround Time: 28 days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|------------------------------|--------|------|--------------------------|--------|------|-------------------------------------------------------------|
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
| ██████████ | 6/6/23 | 1400 | Fedex | 6/6/23 | 1400 | Shipping Date: 6/6/2023 / FEDEX / 7722 5236 5820 |
| | | | ██████████ | 6-7-23 | 1800 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | |
| | | | | | | |

GES.Navy_COC_Field
May 25, 2023



| Field Entry | | | | | | | | | | | Procedures: GES-003 / EPA 900.0M | | Start Date: 5/30/23 | | Stop Date: 6/1/23 | | | |
|-------------|--------------|----------|----------|-----------|-----------|-----------------|-----------------|---------------------|-----------------------|------------------------|----------------------------------|-------------------------|-----------------------|-------------------------|-------------------------------|-----------------------|----------------|---------|
| Station | Sample ID | Date In: | Time In: | Date Out: | Time Out: | Flow Rate (LPM) | Flow Rate (LPM) | Julian Date for Run | Total Run Time (Days) | Total Run Time (Hours) | Average Flow Rate (LPM) | Initial Flow Rate (CFM) | Final Flow Rate (CFM) | Average Flow Rate (CFM) | Average Flow Rate (Cu.Mhr^-1) | Flow Rate (Cu.Mhr^-1) | Total Flow (L) | |
| 1 MSC01 | MSC01-053023 | 05/30/23 | 4:40 | 06/01/23 | 15:22 | 60 | 60 | 211.3 | 152 | 2.45 | 58.70 | 3522.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 211,320 |
| 2 MSC02 | MSC02-053023 | 05/30/23 | 4:50 | 06/01/23 | 15:24 | 60 | 60 | 210.8 | 152 | 2.44 | 58.57 | 3514.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 210,840 |

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/min / 100cm/m)^3 :

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

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

Flow Rate (LPM) = Cu.M X 1000

Total Flow (L) = LPM X Total Minutes

SDG Report - Samples and Containers

| SDG Specific Data | | | | | | | | |
|-------------------|---------------|-----------|-------------------|------------------|------------|--------------|----------------------------------------------------------------|------------|
| SDG | ARS1-23-01241 | | TAT Days | 28 Calendar Days | | Project Type | Environmental | |
| Sample Count | 3 | Rpt Level | 4 | Date Received | 06/07/2023 | | COC Number | 060623RADC |
| Client | GES-AIS, LLC | | Discrepancy Resol | N/A | | PO Number | Parcel C Air Monitoring RAD | |
| Client Code | 1138 | | Client Deadline | 07/05/2023 | | 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-053023 | Air Filter | 05/30/2023 07:59 | 05/30/2023 08:00 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments |
| | 440392 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 05/30/2023 07:59 | AF Volume (CuM): | | 0.001 | | |
| 002 | MSC01-053023 | Air Filter | 06/01/2023 15:21 | 06/01/2023 15:22 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments |
| | 440393 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/01/2023 15:21 | AF Volume (CuM): | | 0.001 | | |
| 003 | MSC02-053023 | Air Filter | 06/01/2023 15:23 | 06/01/2023 15:24 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments |
| | 440394 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/01/2023 15:23 | AF Volume (CuM): | | 0.001 | | |

SDG Report - Analysis Assignments

| | | | |
|---------------|----------------------|-----------------------|-------------|
| SDG | ARS1-23-01241 | Sample Count | 3 |
| Client | GES-AIS, LLC | Analysis Count | 4-12 |

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: 4

| 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 |
| Pu-239/240 (15117-48-3) | | | | 4.8E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A |
| ASP-TH-AF | WRAD | uCi | filter | N/A | PALA-RAD-031 | | | | | | |
| Analyte | | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| Th-232 (7440-29-1) | | | | 1.4E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A |
| GAM-A-AF | WGAM | uCi | filter | N/A | PALA-RAD-007 | | | | | | |
| Analyte | | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| 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 |

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| | | | | | | | | | | | |
|-------------|---------------------|-----|--------|-----------------------|--------------|----------|------------|-------------|-----|-----|------------|
| 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 | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| | 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 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Pu-239/240 | |
| ASP-PU239-AF | 002 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Pu-239/240 | |
| ASP-PU239-AF | 003 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Pu-239/240 | |
| ASP-TH-AF | 001 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Th-232 | |
| ASP-TH-AF | 002 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Th-232 | |
| ASP-TH-AF | 003 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Th-232 | |
| GAM-A-AF | 001 | uCi | filter | N/A | 19 |
| | | 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 | |

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| 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 |

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| GAM-A-AF | 003 | uCi | filter | N/A | 19 |
|-------------|-----|-----------------------|--------|----------------|----|
| | | Group | | Analyte | |
| GPC-SR90-AF | 001 | 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 |
| | | Group | | Analyte | |
| GPC-SR90-AF | 002 | Parcel C Rad Sampling | | Sr-90 | |
| | | Group | | Analyte | |
| GPC-SR90-AF | 003 | Parcel C Rad Sampling | | Sr-90 | |
| | | Group | | Analyte | |
| GPC-SR90-AF | 003 | Parcel C Rad Sampling | | Sr-90 | |

PALA Sample Receipt Inspection Form

Client Name: GES-ADS

SDG: ARS1-23-01241

| | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------|----|-----------|----|
| Sample Custodian | Survey Start Date: <u>6-7-23</u> | Survey Start Time: <u>1155</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>273629</u> | Calibration Due Date: <u>9-13-23</u> | Background: <u>4</u> $\mu\text{R}/\text{hr}$ | | | | | | |
| Count Rate Meter + Probe Unit ID: <u>268993</u> | Calibration Due Date: <u>9-19-23</u> | Background: <u>20</u> cpm | | | | | | |
| Delivery Type (circle one): Direct Lock Box Commercial Carrier <u>FEDEX</u> | Total # of ESCs: <u>1</u> | | | | | | | |
| External Shipping Container Tracking: <u>772252365820</u> Exposure Rate ($\mu\text{R}/\text{hr}$) (limit <500 $\mu\text{R}/\text{hr}$) <u>5</u> Max External Swipe Counts (cpm) <u>20</u> Max Internal Swipe Counts (cpm) <u>30</u> ESC True Temps* ($^{\circ}\text{C}$) <u>NA</u> | | | | | | | | |
| *True temperature is recorded which includes any applicable correction factors. (See Section 4.3 of SOP) | | | | | | | | |
| A: | <u>5</u> | <u>20</u> | <u>30</u> | <u>NA</u> | AQ | WD | WG | WO |
| B: | | | | | WS | WW | SI | UR |
| C: | | | | | SO | OL | BI | VG |
| D: | | | | | WP | SM | <u>AF</u> | |
| E: | | | | | | | | |
| F: | | | | | | | | |
| Visual Inspection: <u>External Shipping Container</u> | | | COC/Sample Inspection | | | | | |
| 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 UN2910 | <input checked="" type="radio"/> Yes | <input checked="" type="radio"/> No | No spills or leaks | <input checked="" type="radio"/> Yes | <input type="radio"/> No | | | |
| Security Seals | <input checked="" type="radio"/> Yes | <input type="radio"/> No | Marked Radioactive | <input checked="" type="radio"/> Yes | <input checked="" type="radio"/> No | | | |
| If yes, intact? | <input checked="" type="radio"/> Yes | <input type="radio"/> No | Durable labels w/indelible ink | <input checked="" type="radio"/> Yes | <input type="radio"/> No | | | |
| <u>Internal Shipping Container</u> | <input type="radio"/> N/A | | COC relinquished/received correctly | <input checked="" type="radio"/> Yes | <input type="radio"/> No | | | |
| COC's Present | <input checked="" type="radio"/> Yes | <input type="radio"/> No | Adequate volume/filled correctly | <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 | Hold Time sufficient for analysis | <input checked="" type="radio"/> Yes | <input type="radio"/> No | | | |
| Comments: | | | | | | | | |
| | | | Type (circle one): <input type="radio"/> Bagged Ice <input type="radio"/> Loose Ice <input type="radio"/> Blue Ice <u>N/A</u> | | | | | |

PALA Sample Survey Form

Client Name: GES-APS
SDG: ARS1-23-01241

Pipette ID: NA

Tip Lot#: NA

Disposable pipette lot#: NA

Sample Custodian:

Survey End Date: 10-7-23

Survey/pH End Time: 1200

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample receiving must be re-checked after ~ 24 hours.

If YES: pH re-check date/time:

Analyst: _____

pH strip lot #:

Were all re-checked samples' pH < 2.2? YES 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: 30MAY23
ACTWGT: 1.00 LB
CAD: 254128867/INET4610

BILL SENDER

ARS ALEUT ANALYTICAL, LLC
2609 NORTH RIVER ROAD

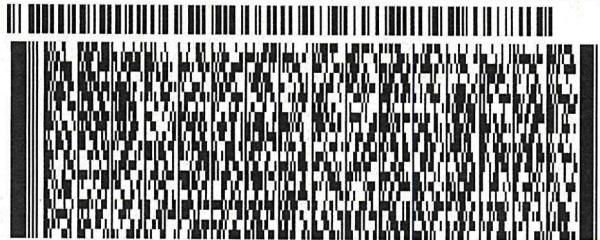
PORT ALLEN LA 70767

(225) 381-2991

REF: J31000.600 02.04.05

INV:
PO:

DEPT:

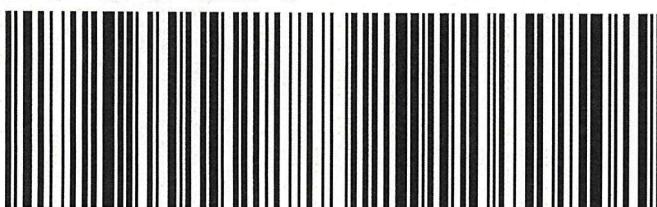


588302294B#FE2D

WED - 31 MAY 4:30P
STANDARD OVERNIGHT

TRK#
0201 7722 5236 5820

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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



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Laboratory Analytical Report

ARS1-23-01292

GES-AIS, LLC

1501 West Fountainhead Parkway
Suite 550
Tempe, AZ 94520

COC Number: **061323RADC**

Job Number: J310000600

Job Location: Hunters Point Shipyard

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.

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. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

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 | LA011312023-1 |
| New Jersey | LA009 |
| New York | 66780 (NPW) / 66781 (SHW) |
| Texas | T104704447-22-18 |
| Utah | LA011312022-13 |
| 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 for additional information.



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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-060523 | ARS1-23-01292-001 |
| MSC01-060523 | ARS1-23-01292-002 |
| MSC01-060523-DUP | ARS1-23-01292-003 |
| MSC02-060523 | ARS1-23-01292-004 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|----------------|---------------|--------------|-------------|----------------|--------------------|
| 001 | 06/05/23 08:00 | 06/14/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 001 | 06/05/23 08:00 | 06/14/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 001 | 06/05/23 08:00 | 06/14/23 | GAM-A-AF | As Received | N/A | 06/21/23 14:10 |
| 001 | 06/05/23 08:00 | 06/14/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |
| 002 | 06/08/23 14:14 | 06/14/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 002 | 06/08/23 14:14 | 06/14/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 002 | 06/08/23 14:14 | 06/14/23 | GAM-A-AF | As Received | N/A | 06/21/23 14:13 |
| 002 | 06/08/23 14:14 | 06/14/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |
| 003 | 06/08/23 14:13 | 06/14/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 003 | 06/08/23 14:13 | 06/14/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |
| 003 | 06/08/23 14:13 | 06/14/23 | GAM-A-AF | As Received | N/A | 06/21/23 14:15 |
| 003 | 06/08/23 14:13 | 06/14/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |
| 004 | 06/08/23 14:13 | 06/14/23 | ASP-PU239-AF | As Received | 06/26/23 08:48 | 06/29/23 01:59 |
| 004 | 06/08/23 14:13 | 06/14/23 | ASP-TH-AF | As Received | 06/26/23 08:48 | 06/30/23 03:12 |



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| | | | | | | |
|-----|-------------------|----------|-------------|-------------|-------------------|-------------------|
| 004 | 06/08/23 14:13 | 06/14/23 | GAM-A-AF | As Received | N/A | 06/21/23 14:17 |
| 004 | 06/08/23 14:13 | 06/14/23 | GPC-SR90-AF | As Received | 06/26/23 08:48 | 06/30/23 11:27 |

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-B23-01024 has elevated MDA for Pu-239/240 with ACT of -1.057E-7 uCi/filter, MDA of 1.483E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01024 has elevated MDA for Pu-239/240 with ACT of -4.023E-8 uCi/filter, MDA of 1.262E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01025 has elevated MDA for Th-232 with ACT of 0.000 uCi/filter, MDA of 7.341E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -1.010E-6 uCi/filter, MDA of 1.549E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01024 has elevated MDA for Pu-239/240 with ACT of -3.557E-8 uCi/filter, MDA of 1.116E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01025 has elevated MDA for Th-232 with ACT of 3.616E-8 uCi/filter, MDA of 6.490E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -4.316E-6 uCi/filter, MDA of 1.539E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 004 in batch ARS1-B23-01024 has elevated MDA for Pu-239/240 with ACT of -9.666E-8 uCi/filter, MDA of 1.761E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 004 in batch ARS1-B23-01025 has elevated MDA for Th-232 with ACT of 2.121E-8 uCi/filter, MDA of



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5.711E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 004 in batch ARS1-B23-00998 has elevated MDA for Ra-226 with ACT of -4.136E-6 uCi/filter, MDA of 1.035E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-01024: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01025: 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 |

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/MDC 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 ingrowth 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 Se-03, HASL 300 Am-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). 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 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01). 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: ARS1-23-01292**Client Sample ID:** FBC-060523**Sample Collection Date:** 06/05/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-01292-001**Date Received:** 06/14/23**Report Date:** 07/05/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.057E-7 | 5.931E-8 | 1.483E-7 | 6.522E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 68.6% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 4.195E-8 | 3.289E-8 | 3.861E-8 | 1.220E-8 | 1.4E-08 | | uCi/filter | 06/30/23 3:12 | [REDACTED] | 86.5% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -9.531E-7 | 1.787E-6 | 1.815E-6 | 9.075E-7 | 0.00024 | U | uCi/filter | 06/21/23 14:10 | [REDACTED] | N/A |
| Cs-137 | -8.124E-7 | 1.490E-6 | 1.661E-6 | 8.305E-7 | 0.00048 | U | uCi/filter | 06/21/23 14:10 | [REDACTED] | N/A |
| Ra-226 | 1.876E-5 | 1.603E-5 | 1.876E-5 | 9.380E-6 | 4.4E-06 | U | uCi/filter | 06/21/23 14:10 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 7.161E-8 | 2.322E-6 | 4.209E-6 | 1.943E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 88.8% |



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ARS Sample Delivery Group: ARS1-23-01292**Client Sample ID:** MSC01-060523**Sample Collection Date:** 06/08/23 14:14**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-01292-002**Date Received:** 06/14/23**Report Date:** 07/05/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -4.023E-8 | 5.597E-8 | 1.262E-7 | 5.403E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 62.4% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-08

| 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 | 3.470E-8 | 7.341E-8 | 2.912E-8 | 1.4E-08 | U | uCi/filter | 06/30/23 3:12 | [REDACTED] | 74.7% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 6.285E-6 | 2.510E-6 | 2.833E-6 | 1.417E-6 | NP | | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |
| Bi-214 | 4.069E-6 | 2.653E-6 | 2.840E-6 | 1.420E-6 | NP | | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |
| Co-60 | -6.735E-7 | 1.165E-6 | 1.257E-6 | 6.285E-7 | 0.00024 | U | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |
| Cs-137 | 5.716E-7 | 6.866E-7 | 7.905E-7 | 3.953E-7 | 0.00048 | U | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |
| Ra-226 | -1.010E-6 | 1.514E-5 | 1.549E-5 | 7.745E-6 | 4.4E-06 | U | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |
| Ra-228 | 6.285E-6 | 2.510E-6 | 2.833E-6 | 1.417E-6 | NP | | uCi/filter | 06/21/23 14:13 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.398E-6 | 2.442E-6 | 4.177E-6 | 1.933E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 88.8% |



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ARS Sample Delivery Group: ARS1-23-01292**Client Sample ID:** MSC01-060523-DUP**Sample Collection Date:** 06/08/23 14:13**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-01292-003**Date Received:** 06/14/23**Report Date:** 07/05/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -3.557E-8 | 4.949E-8 | 1.116E-7 | 4.778E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 66.6% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 3.616E-8 | 4.115E-8 | 6.490E-8 | 2.428E-8 | 1.4E-08 | U | uCi/filter | 06/30/23 3:12 | [REDACTED] | 65.5% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 5.086E-6 | 2.288E-6 | 2.624E-6 | 1.312E-6 | NP | | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |
| Co-60 | -2.314E-7 | 1.010E-6 | 1.037E-6 | 5.185E-7 | 0.00024 | U | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |
| Cs-137 | -4.711E-7 | 7.068E-7 | 1.169E-6 | 5.845E-7 | 0.00048 | U | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |
| Ra-226 | -4.316E-6 | 1.592E-5 | 1.539E-5 | 7.695E-6 | 4.4E-06 | U | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |
| Ra-228 | 5.086E-6 | 2.288E-6 | 2.624E-6 | 1.312E-6 | NP | | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |
| U-235 | 3.676E-6 | 1.786E-6 | 2.801E-6 | 1.401E-6 | NP | | uCi/filter | 06/21/23 14:15 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 6.791E-7 | 2.310E-6 | 4.077E-6 | 1.881E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 83.8% |



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ARS Sample Delivery Group: ARS1-23-01292**Client Sample ID:** MSC02-060523**Sample Collection Date:** 06/08/23 14:13**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** J310000600**ARS Sample ID:** ARS1-23-01292-004**Date Received:** 06/14/23**Report Date:** 07/05/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01024-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -9.666E-8 | 7.977E-8 | 1.761E-7 | 7.869E-8 | 4.8E-08 | U | uCi/filter | 06/29/23 1:59 | [REDACTED] | 58.5% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01025-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 2.121E-8 | 3.297E-8 | 5.711E-8 | 2.137E-8 | 1.4E-08 | U | uCi/filter | 06/30/23 3:12 | [REDACTED] | 76.1% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-00998-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Bi-214 | 3.519E-6 | 1.316E-6 | 1.510E-6 | 7.550E-7 | NP | | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |
| Co-60 | 1.701E-8 | 8.311E-7 | 8.598E-7 | 4.299E-7 | 0.00024 | U | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |
| Cs-137 | 1.144E-7 | 6.588E-7 | 7.169E-7 | 3.585E-7 | 0.00048 | U | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |
| K-40 | 2.082E-5 | 7.796E-6 | 7.540E-6 | 3.770E-6 | NP | | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |
| Pb-214 | 2.764E-6 | 7.166E-7 | 9.817E-7 | 4.909E-7 | NP | | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |
| Ra-226 | -4.136E-6 | 8.231E-6 | 1.035E-5 | 5.175E-6 | 4.4E-06 | U | uCi/filter | 06/21/23 14:17 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01026-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | -1.244E-6 | 2.411E-6 | 4.548E-6 | 2.114E-6 | 2.4E-05 | U | uCi/filter | 06/30/23 11:27 | [REDACTED] | 84.6% |



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ARS Aleut Analytical, LLC

Analytical Reports

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QC Summary



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QC Sample Results

Analytical Batch: ARS1-B23-00998

Lab Sample ID: ARS1-B23-00998-01

Method: EPA 901.1M

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/21/23 7:33

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Am-241 | 33.065 | 30.364 | | uCi/filter | 91.8 | 75 - 125 |
| Co-60 | 20.928 | 21.485 | | uCi/filter | 102.7 | 75 - 125 |
| Cs-137 | 12.996 | 12.851 | | uCi/filter | 98.9 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-00998

Sample Type: LCSD

Lab Sample ID: ARS1-B23-00998-02

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 06/21/23 7:45

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Am-241 | 33.065 | 30.639 | | uCi/filter | 92.7 | 75 - 125 | 0.9 | 25 | 0.161 | 3 |
| Co-60 | 20.928 | 20.239 | | uCi/filter | 96.7 | 75 - 125 | 6.0 | 25 | 1.401 | 3 |
| Cs-137 | 12.996 | 13.185 | | uCi/filter | 101.5 | 75 - 125 | 2.6 | 25 | 0.659 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-00998

Sample Type: MBL

Lab Sample ID: ARS1-B23-00998-03

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 06/20/23 14:08

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|-------|----------|------|----------------|
| Ac-228 | 8.424E-4 | 4.981E-4 | 0.006 | 0.003 | U | uCi/filter |
| Am-241 | -2.508E-4 | 0.001 | 0.002 | 0.001 | U | uCi/filter |
| Bi-212 | -0.007 | 0.011 | 0.013 | 0.006 | U | uCi/filter |
| Bi-214 | -0.006 | 0.004 | 0.004 | 0.002 | U | uCi/filter |
| Co-60 | 8.034E-4 | 0.001 | 0.001 | 6.800E-4 | U | uCi/filter |
| Cs-137 | -4.348E-4 | 0.001 | 0.002 | 8.300E-4 | U | uCi/filter |
| Eu-152 | 4.087E-4 | 0.001 | 0.002 | 8.700E-4 | U | uCi/filter |
| Eu-154 | -5.489E-4 | 0.001 | 0.001 | 7.250E-4 | U | uCi/filter |
| K-40 | -0.005 | 0.023 | 0.023 | 0.012 | U | uCi/filter |
| Pa-234 | 3.523E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-210 | 0.003 | 0.015 | 0.018 | 0.009 | U | uCi/filter |
| Pb-212 | -0.002 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-214 | -0.003 | 0.003 | 0.003 | 0.002 | U | uCi/filter |
| Ra-226 | -0.083 | 0.032 | 0.031 | 0.015 | U | uCi/filter |
| Ra-228 | 8.424E-4 | 4.981E-4 | 0.006 | 0.003 | U | uCi/filter |
| Th-234 | 0.007 | 0.015 | 0.017 | 0.008 | U | uCi/filter |
| Tl-208 | 9.017E-4 | 0.002 | 0.002 | 7.700E-4 | U | uCi/filter |
| U-235 | -0.005 | 0.006 | 0.007 | 0.003 | U | uCi/filter |
| U-238 | 0.007 | 0.015 | 0.017 | 0.008 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01292

Analytical Batch: ARS1-B23-00998

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|------------|-------------|
| ARS1-B23-00998-01 | | Lab Control Sample | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-02 | | Lab Control Sample Duplicate | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-03 | | Method Blank | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-07 | ARS1-23-01292-001 | FBC-060523 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-08 | ARS1-23-01292-002 | MSC01-060523 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-09 | ARS1-23-01292-003 | MSC01-060523-DUP | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-00998-10 | ARS1-23-01292-004 | MSC02-060523 | Air Filter | EPA 901.1M | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-01

Method: Eichrom ACW03

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|------------|-------------|-----------------|------|----------------|-------|--------------|
| Pu-239/240 | 7.782E-6 | 7.480E-6 | | uCi/filter | 96.1 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-02

Method: Eichrom ACW03

Sample Type: LCSD

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|------------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Pu-239/240 | 7.852E-6 | 7.367E-6 | | uCi/filter | 93.8 | 75 - 125 | 1.5 | 25 | 0.170 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01024

Lab Sample ID: ARS1-B23-01024-03

Method: Eichrom ACW03

Sample Type: MBL

Matrix: Air Filter

Analysis Date: 06/29/23 1:59

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|------------|-----------------|-------------|----------|----------|------|----------------|
| Pu-238 | -5.104E-8 | 7.733E-8 | 1.597E-7 | 7.118E-8 | U | uCi/filter |
| Pu-239/240 | -3.828E-8 | 5.325E-8 | 1.201E-7 | 5.141E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01292

Analytical Batch: ARS1-B23-01024

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-B23-01024-01 | | Lab Control Sample | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-03 | | Method Blank | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-07 | ARS1-23-01292-001 | FBC-060523 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-08 | ARS1-23-01292-002 | MSC01-060523 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-09 | ARS1-23-01292-003 | MSC01-060523-DUP | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01024-10 | ARS1-23-01292-004 | MSC02-060523 | Air Filter | Eichrom ACW03 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Lab Sample ID: ARS1-B23-01025-01

Method: Eichrom ACW10

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/30/23 3:12

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Th-230 | 5.243E-6 | 6.062E-6 | | uCi/filter | 115.6 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01025-02

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 06/30/23 3:12

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Th-230 | 5.237E-6 | 5.658E-6 | | uCi/filter | 108.0 | 75 - 125 | 6.9 | 25 | 0.762 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01025

Sample Type: MBL

Lab Sample ID: ARS1-B23-01025-03

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 06/30/23 3:12

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| Th-228 | 5.701E-9 | 8.437E-8 | 1.558E-7 | 7.018E-8 | U | uCi/filter |
| Th-230 | 3.790E-7 | 1.098E-7 | 8.497E-8 | 3.482E-8 | | uCi/filter |
| Th-232 | 0.000 | 2.213E-8 | 5.245E-8 | 1.857E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01292

Analytical Batch: ARS1-B23-01025

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-B23-01025-01 | | Lab Control Sample | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-03 | | Method Blank | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-07 | ARS1-23-01292-001 | FBC-060523 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-08 | ARS1-23-01292-002 | MSC01-060523 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-09 | ARS1-23-01292-003 | MSC01-060523-DUP | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01025-10 | ARS1-23-01292-004 | MSC02-060523 | Air Filter | Eichrom ACW10 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Lab Sample ID: ARS1-B23-01026-01

Method: Eichrom SRW01

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 06/30/23 11:27

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| SR-90 | 1.988E-5 | 1.902E-5 | | uCi/filter | 95.7 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Lab Sample ID: ARS1-B23-01026-02

Method: Eichrom SRW01

Sample Type: LCSD

Matrix: Air Filter

Analysis Date: 06/30/23 11:27

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| SR-90 | 1.988E-5 | 1.961E-5 | | uCi/filter | 98.7 | 75 - 125 | 3.1 | 25 | 0.277 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01026

Sample Type: MBL

Lab Sample ID: ARS1-B23-01026-03

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 06/30/23 11:27

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| SR-90 | 1.350E-6 | 2.677E-6 | 4.612E-6 | 2.136E-6 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01292

Analytical Batch: ARS1-B23-01026

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|---------------|-------------|
| ARS1-B23-01026-01 | | Lab Control Sample | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-03 | | Method Blank | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-07 | ARS1-23-01292-001 | FBC-060523 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-08 | ARS1-23-01292-002 | MSC01-060523 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-09 | ARS1-23-01292-003 | MSC01-060523-DUP | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01026-10 | ARS1-23-01292-004 | MSC02-060523 | Air Filter | Eichrom SRW01 | N/A |



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

ARS Aleut Analytical, LLC

Analytical Reports

for

GES-AIS, LLC

Batch QC



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------------|
| Analytical Batch | ARS1-B23-00998 |
| SDG | ARS1-23-01292 |
| 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 | 06/21/23 07:33 | Analysis Technician | █ █ █ █ █ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|-------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-00998-01 | LCS | AM-241 | 30.364 | 2.351 | 33.065 | 91.8 | 0.132 |
| ARS1-B23-00998-01 | LCS | CO-60 | 21.485 | 1.172 | 20.928 | 102.7 | 0.318 |
| ARS1-B23-00998-01 | LCS | CS-137 | 12.851 | 0.694 | 12.996 | 98.9 | 0.070 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/21/23 07:45 | Analysis Technician | █ █ █ █ █ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| AM-241 | 30.364 | 2.351 | 30.639 | 2.372 | 0.161 | 0.9 | |
| CO-60 | 21.485 | 1.172 | 20.239 | 1.290 | 1.401 | 6.0 | |
| CS-137 | 12.851 | 0.694 | 13.185 | 0.711 | 0.659 | 2.6 | |

| Method Blank | | | Analysis Date | 06/20/23 14:08 | Analysis Technician | █ █ █ █ █ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|-----------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-00998-03 | MBL | AC-228 | 8.424E-4 | 4.981E-4 | 0.006 | U | |
| ARS1-B23-00998-03 | MBL | AM-241 | -2.508E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | BI-212 | -0.007 | 0.011 | 0.013 | U | |
| ARS1-B23-00998-03 | MBL | BI-214 | -0.006 | 0.004 | 0.004 | U | |
| ARS1-B23-00998-03 | MBL | CO-60 | 8.034E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-00998-03 | MBL | CS-137 | -4.348E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | EU-152 | 4.087E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | EU-154 | -5.489E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-00998-03 | MBL | K-40 | -0.005 | 0.023 | 0.023 | U | |
| ARS1-B23-00998-03 | MBL | PA-234 | 3.523E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | PB-210 | 0.003 | 0.015 | 0.018 | U | |
| ARS1-B23-00998-03 | MBL | PB-212 | -0.002 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | PB-214 | -0.003 | 0.003 | 0.003 | U | |
| ARS1-B23-00998-03 | MBL | RA-226 | -0.083 | 0.032 | 0.031 | U | |
| ARS1-B23-00998-03 | MBL | RA-228 | 8.424E-4 | 4.981E-4 | 0.006 | U | |
| ARS1-B23-00998-03 | MBL | TH-234 | 0.007 | 0.015 | 0.017 | U | |
| ARS1-B23-00998-03 | MBL | TL-208 | 9.017E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-00998-03 | MBL | U-235 | -0.005 | 0.006 | 0.007 | U | |
| ARS1-B23-00998-03 | MBL | U-238 | 0.007 | 0.015 | 0.017 | U | |



QC Results per Analytical Batch

| | |
|-------------------------|------------------------------------------------------------------------------------|
| Analytical Batch | ARS1-B23-01024 |
| SDG | ARS1-23-01292 |
| 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 | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|---------------------------|---------|------------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01024-01 | LCS | PU-239/240 | 7.480E-6 | 9.322E-7 | 7.782E-6 | 96.1 | 4.280E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| PU-239/240 | 7.480E-6 | 9.322E-7 | 7.367E-6 | 9.216E-7 | 0.170 | 1.5 | |

| Method Blank | | | Analysis Date | 06/29/23 01:59 | Analysis Technician | ██████████ | |
|--------------------------|---------|------------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01024-03 | MBL | PU-238 | -5.104E-8 | 7.733E-8 | 1.597E-7 | U | |
| ARS1-B23-01024-03 | MBL | PU-239/240 | -3.828E-8 | 5.325E-8 | 1.201E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------|
| Analytical Batch | ARS1-B23-01025 |
| SDG | ARS1-23-01292 |
| 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 | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01025-01 | LCS | TH-230 | 6.062E-6 | 7.617E-7 | 5.243E-6 | 115.6 | 3.928E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| TH-230 | 6.062E-6 | 7.617E-7 | 5.658E-6 | 7.103E-7 | 0.762 | 6.9 | |

| Method Blank | | | Analysis Date | 06/30/23 03:12 | Analysis Technician | ██████████ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01025-03 | MBL | TH-228 | 5.701E-9 | 8.437E-8 | 1.558E-7 | U | |
| ARS1-B23-01025-03 | MBL | TH-230 | 3.790E-7 | 1.098E-7 | 8.497E-8 | | |
| ARS1-B23-01025-03 | MBL | TH-232 | 0.000 | 2.213E-8 | 5.245E-8 | U | |



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------|
| Analytical Batch | ARS1-B23-01026 |
| SDG | ARS1-23-01292 |
| 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 | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01026-01 | LCS | SR-90 | 1.902E-5 | 2.948E-6 | 1.988E-5 | 95.7 | 6.725E-7 |

| Duplicate RER/DER/RPD | | | Analysis Date | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| SR-90 | 1.902E-5 | 2.948E-6 | 1.961E-5 | 3.021E-6 | 0.277 | 3.1 | |

| Method Blank | | | Analysis Date | 06/30/23 11:27 | Analysis Technician | ██████████ | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01026-03 | MBL | SR-90 | 1.350E-6 | 2.677E-6 | 4.612E-6 | U | |



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

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]061323RADC**



| 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: Please return coolers to Kimberly Tom; 200 Fisher Ave; San Francisco, CA 94124 | | | | | Analytical Test Method E901.1 - Gamma Spec RC0240 - Pu and Th Isotopes SR02RC - S90 | | | | | Code Matrix A Air AQ Air Quality Control Matrix Code Container/Preservative 5 1x1-L Plastic, HNO3, pH < 2 15 1x250-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) | Comments | | |
| 1 | FBC-060523 | AQ | 06/05/2023 | 0800 | [REDACTED] | X | X | X | | FIELDQC | FB2 | 0.00 | 0.00 | 1 | TOTAL FLOW (L): NA |
| 2 | MSC01-060523 | A | 06/08/2023 | 1414 | [REDACTED] | X | X | X | | MSC01 | N1 | 0.00 | 0.00 | 1 | TOTAL FLOW (L): 295,149 |
| 3 | MSC01-060523-DUP | A | 06/08/2023 | 1413 | [REDACTED] | X | X | X | | MSC01 | N1 | 0.00 | 0.00 | 1 | TOTAL FLOW (L): 295,080 |
| 4 | MSC02-060523 | A | 06/08/2023 | 1413 | [REDACTED] | X | X | X | | MSC02 | N1 | 0.00 | 0.00 | 1 | TOTAL FLOW (L): 290,880 |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |
| Turnaround Time: 28 days | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------------------------------------------------|---------|------|--------------------------|---------|------|---------------------------------------------------|
| [REDACTED] | 6/13/23 | 1300 | [REDACTED] | 6/13/23 | 1300 | Shipping Date: 6/13/2023 / FEDEX / 7723 1812 8130 |
| Received by Laboratory: (Signature, Date, Time) & condition | | | | | | |

GES Navy COC Field
June 12, 2023

Page 1 of 1



Procedures: GES-003 / EPA 900.0M

Start Date: 6/5/23
Stop Date: 6/8/23

File ID Number: 61323RADC

Field Entry

| Station | Sample ID | Date In | Time In | Date Out | Time Out | Initial Flow Rate (LPM) | Final Flow Rate (LPM) | Flow volume Cu M | Julian Date for Date Out | Total Run Time (Days) | Total Run Time (Hours) | Total 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) | Average Flow Rate (Cu Min/h) | Flow Rate (L) |
|---------|------------------|----------|---------|----------|----------|-------------------------|-----------------------|------------------|--------------------------|-----------------------|------------------------|--------------------------|-------------------------|-------------------------|-----------------------|-------------------------|----------------------------|------------------------------|---------------|
| 1 MSC01 | FBC-060523 | 06/05/23 | 800 | 06/08/23 | 14:14 | 60 | 60 | 291.5 | 159 | 3.37 | 80.98 | 4859.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 291,540 | |
| 1 MSC01 | MSC01-060523-DUP | 06/05/23 | 5:15 | 06/08/23 | 14:13 | 60 | 60 | 291.5 | 159 | 3.37 | 80.97 | 4858.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 291,480 | |
| 2 MSC02 | MSC02-060523 | 06/05/23 | 5:25 | 06/08/23 | 14:13 | 60 | 60 | 290.9 | 159 | 3.37 | 80.80 | 4848.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 290,880 | |

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 Flow/Time = ((Date+Time Out) + (Date+Time In)) / 2

Flow Rate (m³/min) = CFM x 0.0283168468 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 | ARS1-23-01292 | | TAT Days | 28 Calendar Days | | Project Type | Environmental | |
| Sample Count | 4 | Rpt Level | 4 | Date Received | 06/14/2023 | | COC Number | 061323RADC |
| Client | GES-AIS, LLC | | Discrepancy Resol | N/A | | PO Number | | |
| Client Code | 1138 | | Client Deadline | 07/12/2023 | | Job Number | J310000600 | |
| Profile Number | PN-01440 | | | | | Job Location | Hunters Point Shipyard | |
| Comment | | | | | | | | |

| Samples and Containers Checked In Thus Far | | | | | | | | | | |
|--------------------------------------------|------------------|------------|------------------|------------------|------------------|------|-------|---------|----------|--|
| FR | Name | Matrix | Start Date | End Date | Disp | Hold | Arch | Storage | Comments | |
| 001 | FBC-060523 | Air Filter | 06/05/2023 07:59 | 06/05/2023 08:00 | H | 30 | 10 | PrePrep | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | |
| | 441262 | 1 | HDP Container | 1 | LPM | | | 1 | | |
| | | | Mid-Sample Date: | 06/05/2023 07:59 | AF Volume (CuM): | | 0.001 | | | |
| 002 | MSC01-060523 | Air Filter | 06/08/2023 14:13 | 06/08/2023 14:14 | H | 30 | 10 | PrePrep | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | |
| | 441263 | 1 | HDP Container | 1 | LPM | | | 1 | | |
| | | | Mid-Sample Date: | 06/08/2023 14:13 | AF Volume (CuM): | | 0.001 | | | |
| 003 | MSC01-060523-DUP | Air Filter | 06/08/2023 14:12 | 06/08/2023 14:13 | H | 30 | 10 | PrePrep | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | |
| | 441264 | 1 | HDP Container | 1 | LPM | | | 1 | | |
| | | | Mid-Sample Date: | 06/08/2023 14:12 | AF Volume (CuM): | | 0.001 | | | |
| 004 | MSC02-060523 | Air Filter | 06/08/2023 14:12 | 06/08/2023 14:13 | H | 30 | 10 | PrePrep | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | |
| | 441265 | 1 | HDP Container | 1 | LPM | | | 1 | | |
| | | | Mid-Sample Date: | 06/08/2023 14:12 | AF Volume (CuM): | | 0.001 | | | |

SDG Report - Analysis Assignments

| | | | |
|---------------|----------------------|-----------------------|-------------|
| SDG | ARS1-23-01292 | Sample Count | 4 |
| Client | GES-AIS, LLC | Analysis Count | 4-16 |

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: 4

| 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 |
| Pu-239/240 (15117-48-3) | | | | 4.8E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| ASP-TH-AF | WRAD | uCi | filter | N/A | PALA-RAD-031 | | | | | | | |
| | Analyte | | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| Th-232 (7440-29-1) | | | | 1.4E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| GAM-A-AF | WGAM | uCi | filter | N/A | PALA-RAD-007 | | | | | | | |
| | Analyte | | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| | 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 |

User: [REDACTED] Last Modified: 6/15/2023 3:05:31 PM
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DQO Report for SDG
ARS1-23-01292

Printed: 7/5/2023 1:14 PM
Page 2 of 5

| | | | | | | | | | | | |
|--------------------|---------------------|-----|---------|------------|--------------|----------|------------|-------------|-----|-----|------------|
| 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 | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| Sr-90 (10098-97-2) | | | 2.4E-05 | 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 |
| | | Group | | Analyte | | |
| ASP-PU239-AF | 002 | uCi | filter | Pu-239/240 | | 1 |
| | | Group | | Analyte | | |
| ASP-PU239-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| ASP-PU239-AF | 004 | uCi | filter | Pu-239/240 | | 1 |
| | | Group | | Analyte | | |
| ASP-TH-AF | 001 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| ASP-TH-AF | 002 | uCi | filter | Th-232 | | 1 |
| | | Group | | Analyte | | |
| ASP-TH-AF | 003 | uCi | filter | Th-232 | | 1 |
| | | Group | | Analyte | | |
| ASP-TH-AF | 004 | uCi | filter | Th-232 | | 1 |
| | | Group | | Analyte | | |
| GAM-A-AF | 001 | uCi | filter | N/A | | 19 |
| | | Group | | Analyte | | |
| Parcel C Rad Sampling | | | | Ac-228 | | |

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| 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 | N/A | 19 |
| | | 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 | |

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| 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 |
| GAM-A-AF | 005 | uCi | filter |
| | | Group | Analyte |
| GAM-A-AF | 006 | uCi | filter |
| | | Group | Analyte |

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| | | | | | |
|-------------|-----|-----------------------|--------|----------------|---|
| 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 | |
| | | uCi | filter | N/A | 1 |
| GPC-SR90-AF | 001 | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Sr-90 | |
| GPC-SR90-AF | 002 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| GPC-SR90-AF | 003 | Parcel C Rad Sampling | | Sr-90 | |
| | | uCi | filter | N/A | 1 |
| GPC-SR90-AF | 004 | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Sr-90 | |

PALA Sample Receipt Inspection Form

Client Name: GES-AIS

SDG: ARS1-23-01292

| | | | |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Sample Custodian | Survey Start Date: <u>6-14-23</u> Survey Start Time: <u>1410</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>273629</u> | Calibration Due Date: <u>9-13-23</u> | Background: | <u>4</u> $\mu\text{R}/\text{hr}$ |
| Count Rate Meter + Probe Unit ID: <u>248993</u> | Calibration Due Date: <u>9-19-23</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) |
| A: <u>772318128130</u> | <u>5</u> | <u>30</u> | <u>40</u> |
| B: | | | <u>NA</u> |
| C: | | | <u>WS</u> <u>WW</u> <u>SI</u> <u>UR</u> |
| D: | | | <u>SO</u> <u>OL</u> <u>BI</u> <u>VG</u> |
| E: | | | <u>WP</u> <u>SM</u> <u>AF</u> |
| F: | | | |
| Visual Inspection: <u>External Shipping Container</u> | (Circle response) | | |
| Good Condition with no Leaks or Tears | <input checked="" type="checkbox"/> Yes | No | Sample Containers in good condition <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Marked Radioactive | Yes | <input checked="" type="checkbox"/> No | No spills or leaks <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| UN2910 | Yes | <input checked="" type="checkbox"/> No | Marked Radioactive <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Security Seals | <input checked="" type="checkbox"/> Yes | No | Durable labels w/indelible ink <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If yes, intact? | <input checked="" type="checkbox"/> Yes | No | COC relinquished/received correctly <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <u>Internal Shipping Container</u> | | | |
| COC's Present | <input checked="" type="checkbox"/> Yes | No | Adequate volume/filled correctly <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>N/A</u> |
| Well packaged container with no signs of leakage | <input checked="" type="checkbox"/> Yes | No | Hold Time sufficient for analysis <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Comments: | | | |
| COC/Sample Inspection (Circle response) | | | |
| For VOC/Radon, Head space? | | | |
| If yes, <6mm? | | | |
| # of containers received matches # on COC | | | |
| Samples received on ice? | | | |
| Type (circle one): | Bagged Ice | Loose Ice | Blue Ice <u>N/A</u> |

PALA Sample Survey Form

Client Name: GES-AIS
SDG: ARS1-23-01292

Pipette ID: NA

Tip Lot#: NA

Disposable pipette lot#: NA

Sample Custodian

Survey End Date: 6-14-23

Survey/pH End Time: 1410

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample stage.

If YES: pH re-check date/time:

... 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 Director*

- 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: 01JUN23
ACTWGT: 1.00 LB
CAD: 254128867/INET4610

BILL SENDER

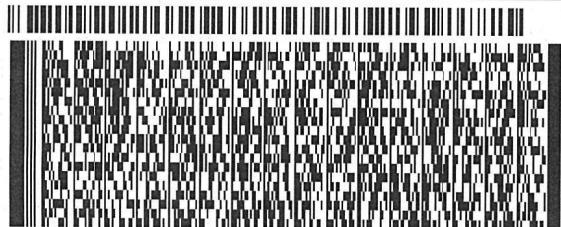
ARS ALEUT ANALYTICAL, LLC
2609 NORTH RIVER ROAD

PORT ALLEN LA 70767

(225) 381-2991
INV.
PO

REF J31000 600 02 04 05

DEPT:



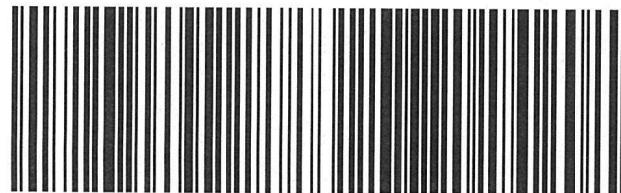
58312/29AB/FED2

FRI - 02 JUN 4:30P

STANDARD OVERNIGHT

TRK#
0201 7723 1812 813070767
LA-US MSY

XN OPLA

**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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ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-23-01335

GES-AIS, LLC
[REDACTED]

1501 West Fountainhead Parkway
Suite 550
Tempe, AZ 85420
[REDACTED]

COC Number: [REDACTED] 062023RADC
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.

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. A statement of uncertainty for each analysis is available upon request. 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 | LA011312023-1 |
| New Jersey | LA009 |
| New York | 66780 (NPW) / 66781 (SHW) |
| Texas | T104704447-22-18 |
| Utah | LA011312022-13 |
| 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 for additional information.



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ARS Aleut Analytical, LLC

Analytical Reports

for

GES-AIS, LLC

Case Narrative



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(225) 228-1394

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

| Client Sample ID | ARS Aleut Analytical Sample ID |
|------------------|--------------------------------|
| FBC-061223 | ARS1-23-01335-001 |
| MSC01-061223 | ARS1-23-01335-002 |
| MSC02-061223 | ARS1-23-01335-003 |
| MSC02-061223-DUP | ARS1-23-01335-004 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|----------------|---------------|--------------|-------------|----------------|--------------------|
| 001 | 06/12/23 08:00 | 06/21/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 001 | 06/12/23 08:00 | 06/21/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 001 | 06/12/23 08:00 | 06/21/23 | GAM-A-AF | As Received | NA | 06/30/23 15:58 |
| 001 | 06/12/23 08:00 | 06/21/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |
| 002 | 06/15/23 12:59 | 06/21/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 002 | 06/15/23 12:59 | 06/21/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 002 | 06/15/23 12:59 | 06/21/23 | GAM-A-AF | As Received | NA | 07/05/23 14:05 |
| 002 | 06/15/23 12:59 | 06/21/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |
| 003 | 06/15/23 13:38 | 06/21/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 003 | 06/15/23 13:38 | 06/21/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 003 | 06/15/23 13:38 | 06/21/23 | GAM-A-AF | As Received | NA | 07/05/23 14:33 |
| 003 | 06/15/23 13:38 | 06/21/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |
| 004 | 06/15/23 13:38 | 06/21/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 004 | 06/15/23 13:38 | 06/21/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |



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| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|-------------------|---------------|-------------|-------------|-------------------|--------------------|
| 004 | 06/15/23 13:38 | 06/21/23 | GAM-A-AF | As Received | NA | 07/06/23 14:29 |
| 004 | 06/15/23 13:38 | 06/21/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |

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-B23-01153 has elevated MDA for Pu-239/240 with ACT of -5.771E-8 uCi/filter, MDA of 1.734E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of 6.801E-8 uCi/filter, MDA of 8.512E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -9.033E-5 uCi/filter, MDA of 3.180E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-01153 has elevated MDA for Pu-239/240 with ACT of -1.945E-8 uCi/filter, MDA of 1.382E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of 6.146E-9 uCi/filter, MDA of 8.059E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -9.357E-5 uCi/filter, MDA of 3.048E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01153 has elevated MDA for Pu-239/240 with ACT of -1.626E-8 uCi/filter, MDA of 1.147E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of 3.651E-8 uCi/filter, MDA of



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4.914E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -5.144E-6 uCi/filter, MDA of 1.502E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 004 in batch ARS1-B23-01153 has elevated MDA for Pu-239/240 with ACT of -6.277E-8 uCi/filter, MDA of 1.912E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 004 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of -5.604E-9 uCi/filter, MDA of 7.349E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 004 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -6.193E-6 uCi/filter, MDA of 1.540E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

ARS1-B23-01152: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01153: 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 |

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/MDC 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 ingrowth 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 Se-03, HASL 300 Am-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). 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 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01). 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 Sample Delivery Group: ARS1-23-01335**Client Sample ID:** FBC-061223**Sample Collection Date:** 06/12/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01335-001**Date Received:** 06/21/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-004

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -5.771E-8 | 8.274E-8 | 1.734E-7 | 7.691E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 56.0% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-004

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 6.801E-8 | 5.723E-8 | 8.512E-8 | 3.488E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 69.8% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-004

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | 4.316E-7 | 1.557E-6 | 1.599E-6 | 7.995E-7 | 0.00024 | U | uCi/filter | 06/30/23 15:58 | [REDACTED] | N/A |
| Cs-137 | 2.177E-7 | 1.361E-6 | 1.534E-6 | 7.670E-7 | 0.00048 | U | uCi/filter | 06/30/23 15:58 | [REDACTED] | N/A |
| Pa-234 | 1.467E-6 | 9.304E-7 | 1.449E-6 | 7.245E-7 | NP | | uCi/filter | 06/30/23 15:58 | [REDACTED] | N/A |
| Pb-214 | 3.771E-6 | 2.611E-6 | 2.834E-6 | 1.417E-6 | NP | | uCi/filter | 06/30/23 15:58 | [REDACTED] | N/A |
| Ra-226 | -9.033E-5 | 3.217E-5 | 3.180E-5 | 1.590E-5 | 4.4E-06 | U | uCi/filter | 06/30/23 15:58 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-004

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 9.960E-7 | 2.224E-6 | 3.857E-6 | 1.783E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 99.0% |



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ARS Sample Delivery Group: ARS1-23-01335**Client Sample ID:** MSC01-061223**Sample Collection Date:** 06/15/23 12:59**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01335-002**Date Received:** 06/21/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.945E-8 | 6.847E-8 | 1.382E-7 | 6.033E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 62.4% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 6.146E-9 | 3.996E-8 | 8.059E-8 | 3.197E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 68.0% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | 4.400E-7 | 1.434E-6 | 1.475E-6 | 7.375E-7 | 0.00024 | U | uCi/filter | 07/05/23 14:05 | [REDACTED] | N/A |
| Cs-137 | -2.233E-7 | 1.404E-6 | 1.581E-6 | 7.905E-7 | 0.00048 | U | uCi/filter | 07/05/23 14:05 | [REDACTED] | N/A |
| Ra-226 | -9.357E-5 | 3.154E-5 | 3.048E-5 | 1.524E-5 | 4.4E-06 | U | uCi/filter | 07/05/23 14:05 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | -1.677E-7 | 2.106E-6 | 3.860E-6 | 1.782E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 97.3% |



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ARS Sample Delivery Group: ARS1-23-01335**Client Sample ID:** MSC02-061223**Sample Collection Date:** 06/15/23 13:38**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01335-003**Date Received:** 06/21/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.626E-8 | 5.042E-8 | 1.147E-7 | 4.632E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 48.5% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 3.651E-8 | 3.376E-8 | 4.914E-8 | 1.839E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 93.8% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 3.832E-6 | 2.957E-6 | 3.224E-6 | 1.612E-6 | NP | | uCi/filter | 07/05/23 14:33 | [REDACTED] | N/A |
| Co-60 | 2.305E-7 | 8.763E-7 | 9.616E-7 | 4.808E-7 | 0.00024 | U | uCi/filter | 07/05/23 14:33 | [REDACTED] | N/A |
| Cs-137 | 4.070E-7 | 7.277E-7 | 8.444E-7 | 4.222E-7 | 0.00048 | U | uCi/filter | 07/05/23 14:33 | [REDACTED] | N/A |
| Ra-226 | -5.144E-6 | 1.438E-5 | 1.502E-5 | 7.510E-6 | 4.4E-06 | U | uCi/filter | 07/05/23 14:33 | [REDACTED] | N/A |
| Ra-228 | 3.832E-6 | 2.957E-6 | 3.224E-6 | 1.612E-6 | NP | | uCi/filter | 07/05/23 14:33 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 4.266E-7 | 2.061E-6 | 3.671E-6 | 1.693E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 93.9% |



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ARS Sample Delivery Group: ARS1-23-01335**Client Sample ID:** MSC02-061223-DUP**Sample Collection Date:** 06/15/23 13:38**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01335-004**Date Received:** 06/21/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -6.277E-8 | 8.820E-8 | 1.912E-7 | 8.344E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 49.1% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | -5.604E-9 | 3.296E-8 | 7.349E-8 | 2.915E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 70.4% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 4.876E-6 | 2.754E-6 | 2.944E-6 | 1.472E-6 | NP | | uCi/filter | 07/06/23 14:29 | [REDACTED] | N/A |
| Co-60 | -3.383E-7 | 9.431E-7 | 1.029E-6 | 5.145E-7 | 0.00024 | U | uCi/filter | 07/06/23 14:29 | [REDACTED] | N/A |
| Cs-137 | 1.567E-7 | 7.304E-7 | 8.558E-7 | 4.279E-7 | 0.00048 | U | uCi/filter | 07/06/23 14:29 | [REDACTED] | N/A |
| Ra-226 | -6.193E-6 | 1.462E-5 | 1.540E-5 | 7.700E-6 | 4.4E-06 | U | uCi/filter | 07/06/23 14:29 | [REDACTED] | N/A |
| Ra-228 | 4.876E-6 | 2.754E-6 | 2.944E-6 | 1.472E-6 | NP | | uCi/filter | 07/06/23 14:29 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-07

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.749E-6 | 2.318E-6 | 3.886E-6 | 1.786E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 91.4% |



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QC Summary



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QC Sample Results

Analytical Batch: ARS1-B23-01092

Lab Sample ID: ARS1-B23-01092-01

Method: EPA 901.1M

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/06/23 15:18

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Am-241 | 33.065 | 31.611 | | uCi/filter | 95.6 | 75 - 125 |
| Co-60 | 20.928 | 22.331 | | uCi/filter | 106.7 | 75 - 125 |
| Cs-137 | 12.996 | 13.346 | | uCi/filter | 102.7 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01092

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01092-02

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 07/06/23 15:30

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Am-241 | 33.065 | 31.777 | | uCi/filter | 96.1 | 75 - 125 | 0.5 | 25 | 0.093 | 3 |
| Co-60 | 20.928 | 22.068 | | uCi/filter | 105.4 | 75 - 125 | 1.2 | 25 | 0.309 | 3 |
| Cs-137 | 12.996 | 13.316 | | uCi/filter | 102.5 | 75 - 125 | 0.2 | 25 | 0.059 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01092**Sample Type:** MBL**Lab Sample ID:** ARS1-B23-01092-03**Matrix:** Air Filter**Method:** EPA 901.1M**Analysis Date:** 07/06/23 14:28

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|-------|----------|------|----------------|
| Ac-228 | -0.004 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| Am-241 | -1.042E-4 | 0.001 | 0.002 | 0.001 | U | uCi/filter |
| Bi-212 | -0.004 | 0.013 | 0.013 | 0.007 | U | uCi/filter |
| Bi-214 | -0.004 | 0.004 | 0.004 | 0.002 | U | uCi/filter |
| Co-60 | -0.001 | 0.002 | 0.002 | 9.500E-4 | U | uCi/filter |
| Cs-137 | -8.068E-4 | 0.002 | 0.002 | 8.650E-4 | U | uCi/filter |
| Eu-152 | 6.050E-4 | 0.001 | 0.002 | 8.750E-4 | U | uCi/filter |
| Eu-154 | -1.956E-4 | 0.001 | 0.001 | 6.950E-4 | U | uCi/filter |
| K-40 | -0.025 | 0.025 | 0.025 | 0.012 | U | uCi/filter |
| Pa-234 | 7.243E-4 | 0.001 | 0.002 | 9.700E-4 | U | uCi/filter |
| Pb-210 | -0.013 | 0.016 | 0.017 | 0.009 | U | uCi/filter |
| Pb-212 | 4.850E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-214 | 0.003 | 0.003 | 0.003 | 0.001 | U | uCi/filter |
| Ra-226 | -0.080 | 0.024 | 0.031 | 0.016 | U | uCi/filter |
| Ra-228 | -0.004 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| Th-234 | -0.007 | 0.016 | 0.017 | 0.009 | U | uCi/filter |
| Tl-208 | -0.001 | 0.002 | 0.002 | 8.650E-4 | U | uCi/filter |
| U-235 | -0.001 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| U-238 | -0.007 | 0.016 | 0.017 | 0.009 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01335

Analytical Batch: ARS1-B23-01092

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|------------|-------------|
| ARS1-B23-01092-01 | | Lab Control Sample | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-02 | | Lab Control Sample Duplicate | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-03 | | Method Blank | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-04 | ARS1-23-01335-001 | FBC-061223 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-05 | ARS1-23-01335-002 | MSC01-061223 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-06 | ARS1-23-01335-003 | MSC02-061223 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-07 | ARS1-23-01335-004 | MSC02-061223-DUP | Air Filter | EPA 901.1M | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Lab Sample ID: ARS1-B23-01152-01

Method: Eichrom ACW10

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/15/23 2:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Th-230 | 5.253E-6 | 5.906E-6 | | uCi/filter | 112.4 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01152-02

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 07/15/23 2:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Th-230 | 5.268E-6 | 5.660E-6 | | uCi/filter | 107.4 | 75 - 125 | 4.2 | 25 | 0.466 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Lab Sample ID: ARS1-B23-01152-03

Method: Eichrom ACW10

Sample Type: MBL

Matrix: Air Filter

Analysis Date: 07/15/23 2:59

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| Th-228 | 7.644E-8 | 6.483E-8 | 9.801E-8 | 4.104E-8 | U | uCi/filter |
| Th-230 | 4.672E-8 | 4.614E-8 | 7.018E-8 | 2.717E-8 | U | uCi/filter |
| Th-232 | -5.829E-9 | 3.023E-8 | 7.004E-8 | 2.712E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01335

Analytical Batch: ARS1-B23-01152

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-B23-01152-01 | | Lab Control Sample | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-03 | | Method Blank | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-04 | ARS1-23-01335-001 | FBC-061223 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-05 | ARS1-23-01335-002 | MSC01-061223 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-06 | ARS1-23-01335-003 | MSC02-061223 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-07 | ARS1-23-01335-004 | MSC02-061223-DUP | Air Filter | Eichrom ACW10 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Lab Sample ID: ARS1-B23-01153-01

Method: Eichrom ACW03

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/19/23 3:26

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|------------|-------------|-----------------|------|----------------|-------|--------------|
| Pu-239/240 | 7.810E-6 | 7.683E-6 | | uCi/filter | 98.4 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01153-02

Matrix: Air Filter

Method: Eichrom ACW03

Analysis Date: 07/19/23 3:26

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|------------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Pu-239/240 | 7.740E-6 | 7.602E-6 | | uCi/filter | 98.2 | 75 - 125 | 1.1 | 25 | 0.117 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Sample Type: MBL

Lab Sample ID: ARS1-B23-01153-03

Matrix: Air Filter

Method: Eichrom ACW03

Analysis Date: 07/19/23 3:26

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|------------|-----------------|-------------|----------|----------|------|----------------|
| Pu-238 | -4.595E-8 | 1.041E-7 | 2.059E-7 | 9.257E-8 | U | uCi/filter |
| Pu-239/240 | -5.360E-8 | 9.152E-8 | 1.879E-7 | 8.355E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01335

Analytical Batch: ARS1-B23-01153

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-B23-01153-01 | | Lab Control Sample | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-03 | | Method Blank | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-04 | ARS1-23-01335-001 | FBC-061223 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-05 | ARS1-23-01335-002 | MSC01-061223 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-06 | ARS1-23-01335-003 | MSC02-061223 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-07 | ARS1-23-01335-004 | MSC02-061223-DUP | Air Filter | Eichrom ACW03 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Lab Sample ID: ARS1-B23-01158-01

Method: Eichrom SRW01

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/14/23 12:06

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| SR-90 | 2.035E-5 | 2.013E-5 | | uCi/filter | 98.9 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01158-02

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 07/14/23 12:06

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| SR-90 | 2.011E-5 | 1.953E-5 | | uCi/filter | 97.1 | 75 - 125 | 3.0 | 25 | 0.274 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Sample Type: MBL

Lab Sample ID: ARS1-B23-01158-03

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 07/14/23 12:06

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| SR-90 | 1.444E-6 | 2.527E-6 | 4.325E-6 | 2.000E-6 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01335

Analytical Batch: ARS1-B23-01158

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|---------------|-------------|
| ARS1-B23-01158-01 | | Lab Control Sample | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-03 | | Method Blank | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-04 | ARS1-23-01335-001 | FBC-061223 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-05 | ARS1-23-01335-002 | MSC01-061223 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-06 | ARS1-23-01335-003 | MSC02-061223 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-07 | ARS1-23-01335-004 | MSC02-061223-DUP | Air Filter | Eichrom SRW01 | N/A |



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ARS Aleut Analytical, LLC

Analytical Reports

for

GES-AIS, LLC

Batch QC



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------------|
| Analytical Batch | ARS1-B23-01092 |
| SDG | ARS1-23-01335 |
| 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 | 07/06/23 15:18 | Analysis Technician | [REDACTED] | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|-------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01092-01 | LCS | AM-241 | 31.611 | 2.455 | 33.065 | 95.6 | 0.113 |
| ARS1-B23-01092-01 | LCS | CO-60 | 22.331 | 1.190 | 20.928 | 106.7 | 0.448 |
| ARS1-B23-01092-01 | LCS | CS-137 | 13.346 | 0.711 | 12.996 | 102.7 | 0.072 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/06/23 15:30 | Analysis Technician | [REDACTED] | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| AM-241 | 31.611 | 2.455 | 31.777 | 2.468 | 0.093 | 0.5 | |
| CO-60 | 22.331 | 1.190 | 22.068 | 1.171 | 0.309 | 1.2 | |
| CS-137 | 13.346 | 0.711 | 13.316 | 0.710 | 0.059 | 0.2 | |

| Method Blank | | | Analysis Date | 07/06/23 14:28 | Analysis Technician | [REDACTED] | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01092-03 | MBL | AC-228 | -0.004 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | AM-241 | -1.042E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | BI-212 | -0.004 | 0.013 | 0.013 | U | |
| ARS1-B23-01092-03 | MBL | BI-214 | -0.004 | 0.004 | 0.004 | U | |
| ARS1-B23-01092-03 | MBL | CO-60 | -0.001 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | CS-137 | -8.068E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | EU-152 | 6.050E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | EU-154 | -1.956E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-01092-03 | MBL | K-40 | -0.025 | 0.025 | 0.025 | U | |
| ARS1-B23-01092-03 | MBL | PA-234 | 7.243E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | PB-210 | -0.013 | 0.016 | 0.017 | U | |
| ARS1-B23-01092-03 | MBL | PB-212 | 4.850E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | PB-214 | 0.003 | 0.003 | 0.003 | U | |
| ARS1-B23-01092-03 | MBL | RA-226 | -0.080 | 0.024 | 0.031 | U | |
| ARS1-B23-01092-03 | MBL | RA-228 | -0.004 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | TH-234 | -0.007 | 0.016 | 0.017 | U | |
| ARS1-B23-01092-03 | MBL | TL-208 | -0.001 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | U-235 | -0.001 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | U-238 | -0.007 | 0.016 | 0.017 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------|
| Analytical Batch | ARS1-B23-01152 |
| SDG | ARS1-23-01335 |
| 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 | 07/15/23 02:59 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01152-01 | LCS | TH-230 | 5.906E-6 | 7.486E-7 | 5.253E-6 | 112.4 | 6.187E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/15/23 02:59 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| TH-230 | 5.906E-6 | 7.486E-7 | 5.660E-6 | 7.126E-7 | 0.466 | 4.2 | |

| Method Blank | | | Analysis Date | 07/15/23 02:59 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01152-03 | MBL | TH-228 | 7.644E-8 | 6.483E-8 | 9.801E-8 | U | |
| ARS1-B23-01152-03 | MBL | TH-230 | 4.672E-8 | 4.614E-8 | 7.018E-8 | U | |
| ARS1-B23-01152-03 | MBL | TH-232 | -5.829E-9 | 3.023E-8 | 7.004E-8 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------------------------|
| Analytical Batch | ARS1-B23-01153 |
| SDG | ARS1-23-01335 |
| 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 | 07/19/23 03:26 | Analysis Technician | | |
|---------------------------|---------|------------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01153-01 | LCS | PU-239/240 | 7.683E-6 | 9.664E-7 | 7.810E-6 | 98.4 | 4.540E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/19/23 03:26 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| PU-239/240 | 7.683E-6 | 9.664E-7 | 7.602E-6 | 9.554E-7 | 0.117 | 1.1 | |

| Method Blank | | | Analysis Date | 07/19/23 03:26 | Analysis Technician | | |
|--------------------------|---------|------------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01153-03 | MBL | PU-238 | -4.595E-8 | 1.041E-7 | 2.059E-7 | U | |
| ARS1-B23-01153-03 | MBL | PU-239/240 | -5.360E-8 | 9.152E-8 | 1.879E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------|
| Analytical Batch | ARS1-B23-01158 |
| SDG | ARS1-23-01335 |
| 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 | 07/14/23 12:06 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01158-01 | LCS | SR-90 | 2.013E-5 | 3.088E-6 | 2.035E-5 | 98.9 | 4.057E-7 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/14/23 12:06 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| SR-90 | 2.013E-5 | 3.088E-6 | 1.953E-5 | 2.995E-6 | 0.274 | 3.0 | |

| Method Blank | | | Analysis Date | 07/14/23 12:06 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01158-03 | MBL | SR-90 | 1.444E-6 | 2.527E-6 | 4.325E-6 | U | |



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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] 062023RADC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------|
| 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: Please return coolers to [REDACTED] 200 Fisher Ave; San Francisco, CA 94124 | | Analytical Test Method E901.1 - Gamma Spec RC0240 - Pu and Th Isotopes SR02RC - S-90 | 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 | Depth (ft bgs) | | | Comments | |
| 1 FBC-061223 | AQ | 06/12/2023 | 0800 | X X X | | | | | FIELDQC | FB2 | 0.00 | 0.00 | 1 | | |
| 2 MSC01-061223 | A | 06/15/2023 | 1259 | X X X | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | |
| 3 MSC02-061223 | A | 06/15/2023 | 1338 | X X X | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | |
| 4 MSC02-061223-DUP | A | 06/15/2023 | 1338 | X X X | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | 6/20/23 [REDACTED] | |
| Turnaround Time: 28 days | | | | | | | | | | | | | | | |

| | | | | | | |
|-------------------------------------|---------|------|---------------------------------|---------|------|------------------------------------------------------------------------|
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
| [REDACTED] | 6/20/23 | 1600 | [REDACTED] Pd/GC | 6/20/23 | 1600 | Shipping Date: 6/20/2023 / FEDEX / 7723 2224 0467 |
| [REDACTED] | | | [REDACTED] | 6-21-23 | 1645 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | |
| | | | | | | |

ES.Navy COC Field
June 12, 2023

Page 1 of 1



Procedures: GES-003 / EPA 900.0M
File ID Number: 062023RADC

Start Date: 6/12/23
Stop Date: 6/15/23

Field Entry

| Station | Sample ID | Date In | Time In | Date Out | Time Out | Initial Flow Rate (LPM) | Final Flow Rate (LPM) | Julian Date for Run | Total Run Time (Days) | Total Run Time (Hours) | Total 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/h) | Total Flow (L) | |
|---------|------------------|-----------|---------|-----------|----------|-------------------------|-----------------------|---------------------|-----------------------|------------------------|--------------------------|-------------------------|-------------------------|-----------------------|-------------------------|----------------------------|--------------------|----------------|---------|
| | | | | | | | | | | | | | | | | | | | |
| | FBC-061223 | 6/12/2023 | 8:00 | 6/12/2023 | 8:00 | | | | | | | | | | | | | | |
| 1 MSC01 | MSC01-061223 | 06/12/23 | 4:50 | 06/15/23 | 12:59 | 60 | 60 | 288.5 | 166 | 3.34 | 80.15 | 4809.0 | 60 | 2.11888 | 2.11888 | 2.11888 | 3.6 | 0.06 | 288.540 |
| 2 MSC02 | MSC02-061223 | 06/12/23 | 5:00 | 06/15/23 | 13:38 | 60 | 60 | 290.3 | 166 | 3.36 | 80.63 | 4838.0 | 60 | 2.11888 | 2.11888 | 2.11888 | 3.6 | 0.06 | 290.280 |
| 3 MSC02 | MSC02-061223-DUP | 06/12/23 | 5:00 | 06/15/23 | 13:38 | 60 | 60 | 290.3 | 166 | 3.36 | 80.63 | 4838.0 | 60 | 2.11888 | 2.11888 | 2.11888 | 3.6 | 0.06 | 290.280 |

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 | ARS1-23-01335 | | TAT Days | 28 Calendar Days | | Project Type | Environmental | | | | | |
| Sample Count | 4 | Rpt Level | 2a | Date Received | 06/21/2023 | | COC Number | 062023RADC | | | | |
| Client | GES-AIS, LLC | | Discrepancy Resol | N/A | | PO Number | Parcel C Air Monitoring RAD | | | | | |
| Client Code | 1138 | | Client Deadline | 07/19/2023 | | 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-061223 | Air Filter | 06/12/2023 07:59 | 06/12/2023 08:00 | H | 30 | 10 | PrePrep | | | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | | | |
| | 441686 | 1 | HDP Container | 1 | LPM | | | 1 | | | | |
| | | | Mid-Sample Date: | 06/12/2023 07:59 | AF Volume (CuM): | | 0.001 | | | | | |
| 002 | MSC01-061223 | Air Filter | 06/15/2023 12:58 | 06/15/2023 12:59 | H | 30 | 10 | PrePrep | | | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | | | |
| | 441687 | 1 | HDP Container | 1 | LPM | | | 1 | | | | |
| | | | Mid-Sample Date: | 06/15/2023 12:58 | AF Volume (CuM): | | 0.001 | | | | | |
| 003 | MSC02-061223 | Air Filter | 06/15/2023 13:37 | 06/15/2023 13:38 | H | 30 | 10 | PrePrep | | | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | | | |
| | 441688 | 1 | HDP Container | 1 | LPM | | | 1 | | | | |
| | | | Mid-Sample Date: | 06/15/2023 13:37 | AF Volume (CuM): | | 0.001 | | | | | |
| 004 | MSC02-061223-DUP | Air Filter | 06/15/2023 13:37 | 06/15/2023 13:38 | H | 30 | 10 | PrePrep | | | | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | Comments | | | |
| | 441689 | 1 | HDP Container | 1 | LPM | | | 1 | | | | |
| | | | Mid-Sample Date: | 06/15/2023 13:37 | AF Volume (CuM): | | 0.001 | | | | | |

SDG Report - Analysis Assignments

| | | | |
|---------------|----------------------|-----------------------|-------------|
| SDG | ARS1-23-01335 | Sample Count | 4 |
| Client | GES-AIS, LLC | Analysis Count | 4-16 |

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 |

DQO Report for SDG

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Client Name: GES-AIS, LLC

Profile Name: Parcel C Rad Sampling

Report Level: 2a

| 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 | |
| Pu-239/240 (15117-48-3) | | | | 4.8E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| ASP-TH-AF | WRAD | uCi | filter | N/A | PALA-RAD-031 | | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL | |
| Th-232 (7440-29-1) | | | | 1.4E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| GAM-A-AF | WGAM | uCi | filter | N/A | PALA-RAD-007 | | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL | |
| | 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 |

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| | | | | | | | | | | | |
|-------------|---------------------|-----|--------|-----------------------|--------------|----------|------------|-------------|-----|-----|------------|
| 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 | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| | 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 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 004 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-TH-AF | 001 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 004 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| GAM-A-AF | 001 | uCi | filter | N/A | | 19 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Ac-228 | | |

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| 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 | N/A | 19 |
| | | 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 | |

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| | | | |
|----------|-----|-----------------------|---------|
| 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 |

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| | | | | | |
|-------------|-----|-----------------------|--------|---------|---|
| 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 | |
| | | uCi | filter | N/A | 1 |
| GPC-SR90-AF | 001 | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Sr-90 | |
| GPC-SR90-AF | 002 | uCi | filter | N/A | 1 |
| | | Group | | Analyte | |
| | | Parcel C Rad Sampling | | Sr-90 | |
| GPC-SR90-AF | 003 | uCi | filter | N/A | 1 |
| | | 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-AIS

SDG: ARS1-23-01335

| | | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------|
| Sample Custodian: | Survey Start Date: <u>10-22-23</u> Survey Start Time: <u>9:10</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>273629</u> | Calibration Due Date: <u>9-13-23</u> Background: <u>4</u> µR/hr | | |
| Count Rate Meter + Probe Unit ID: <u>268993</u> | Calibration Due Date: <u>9-19-23</u> Background: <u>20</u> cpm | | |
| Delivery Type (circle one): Direct Lock Box <u>Commercial Carrier</u> : <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 (µR/hr) (limit <500 µR/hr) | Max External Swipe Counts (cpm) | Max Internal Swipe Counts (cpm) |
| A: <u>772321240461</u> | <u>5</u> | <u>20</u> | <u>30</u> |
| B: | | | |
| C: | | | |
| D: | | | |
| E: | | | |
| F: | | | |
| TRAX Matrix ID (circle all that apply): (See Section 4.3 of SOP) | | | |
| AQ | WD | WG | WO |
| WS | WW | SI | UR |
| SO | OL | BI | VG |
| WP | SM | <u>AF</u> | |
| Visual Inspection: <u>External Shipping Container</u> (Circle response) | | | |
| Good Condition with no Leaks or Tears | <input checked="" type="checkbox"/> Yes | No | Sample Containers in good condition <input checked="" type="checkbox"/> Yes No |
| Marked Radioactive | Yes | <input checked="" type="checkbox"/> No | No spills or leaks <input checked="" type="checkbox"/> Yes No |
| UN2910 | Yes | <input checked="" type="checkbox"/> No | Marked Radioactive <input checked="" type="checkbox"/> Yes No |
| Security Seals | <input checked="" type="checkbox"/> Yes | No | Durable labels w/indelible ink <input checked="" type="checkbox"/> Yes No |
| If yes, intact? | <input checked="" type="checkbox"/> Yes | No | COC relinquished/received correctly <input checked="" type="checkbox"/> Yes No |
| <u>Internal Shipping Container</u> (Circle response) | | | |
| COC's Present | <input checked="" type="checkbox"/> Yes | No | Adequate volume/filled correctly <input checked="" type="checkbox"/> Yes No |
| Well packaged container with no signs of leakage | <input checked="" type="checkbox"/> Yes | No | Hold Time sufficient for analysis <input checked="" type="checkbox"/> Yes No |
| For VOC/Radon, Head space? | | | |
| If yes, <6mm? | | | |
| # of containers received matches # on COC | | | |
| Samples received on ice? | | | |
| Comments: | | | |
| Type (circle one): <u>Bagged Ice</u> <u>Loose Ice</u> <u>Blue Ice</u> <u>N/A</u> | | | |

PALA Sample Survey Form

Client Name: GES-AIS
SDG: ARS1-23-01335

Pipette ID: NA

Tip Lot#: NA

Disposable pipette lot#: NA

Sample Custodia

Survey End Date: 6-22-23 Survey/pH End Time: 9:15

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample receiving must be sent to the laboratory in a glass jar.

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

200 FISHER STREET

SAN FRANCISCO, CA 94124
UNITED STATES USSHIP DATE: 06JUN23
ACTWGT: 1.00 LB
CAD: 254128867/INET4610

BILL SENDER

TO [REDACTED]

ARS ALEUT ANALYTICAL, LLC
2609 NORTH RIVER ROAD

PORT ALLEN LA 70767

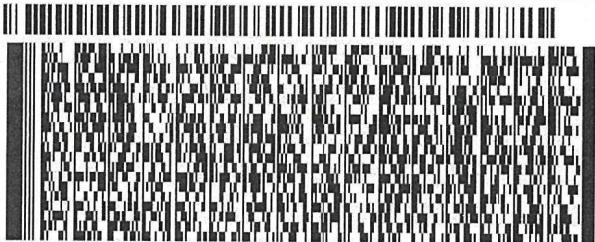
(225) 381-2991

REF: J31000.600 02.04.05

INV:

PO:

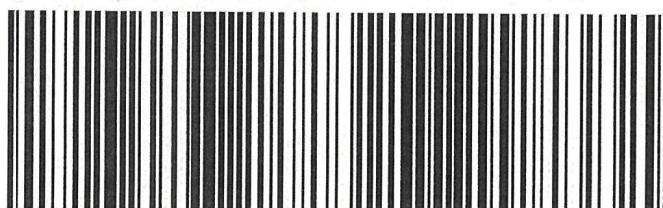
DEPT:



5831229AB/FE2D

WED - 07 JUN 4:30P
STANDARD OVERNIGHTTRK#
0201 7723 2224 0467

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.

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

ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-23-01419

GES-AIS, LLC
[REDACTED]

1501 West Fountainhead Parkway
Suite 550
Tempe, AZ 85420
[REDACTED]

COC Number: [REDACTED] 062723RADC

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.

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. A statement of uncertainty for each analysis is available upon request. 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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| Batch QC | 29 |
| Sample Management Records | 34 |

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 | LA011312023-1 |
| New Jersey | LA009 |
| New York | 66780 (NPW) / 66781 (SHW) |
| Texas | T104704447-22-18 |
| Utah | LA011312022-13 |
| 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 for additional information.



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

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-061923 | ARS1-23-01419-001 |
| MSC01-061923 | ARS1-23-01419-002 |
| MSC02-061923 | ARS1-23-01419-003 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|----------------|---------------|--------------|-------------|----------------|--------------------|
| 001 | 06/19/23 08:00 | 06/28/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 001 | 06/19/23 08:00 | 06/28/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 001 | 06/19/23 08:00 | 06/28/23 | GAM-A-AF | As Received | NA | 07/07/23 15:59 |
| 001 | 06/19/23 08:00 | 06/28/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |
| 002 | 06/22/23 15:05 | 06/28/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 002 | 06/22/23 15:05 | 06/28/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 002 | 06/22/23 15:05 | 06/28/23 | GAM-A-AF | As Received | NA | 07/07/23 16:00 |
| 002 | 06/22/23 15:05 | 06/28/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |
| 003 | 06/22/23 15:04 | 06/28/23 | ASP-PU239-AF | As Received | 07/12/23 07:35 | 07/19/23 03:26 |
| 003 | 06/22/23 15:04 | 06/28/23 | ASP-TH-AF | As Received | 07/12/23 08:45 | 07/15/23 02:59 |
| 003 | 06/22/23 15:04 | 06/28/23 | GAM-A-AF | As Received | NA | 07/08/23 13:35 |
| 003 | 06/22/23 15:04 | 06/28/23 | GPC-SR90-AF | As Received | 07/13/23 08:20 | 07/14/23 12:06 |

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-B23-01153 has elevated MDA for Pu-239/240 with ACT of -4.235E-8 uCi/filter, MDA of 1.329E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of 0.000 uCi/filter, MDA of 5.707E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -8.668E-5 uCi/filter, MDA of 3.168E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 002 in batch ARS1-B23-01153 has elevated MDA for Pu-239/240 with ACT of -5.082E-8 uCi/filter, MDA of 1.650E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of -6.466E-9 uCi/filter, MDA of 9.122E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01092 has elevated MDA for Ra-226 with ACT of -1.456E-5 uCi/filter, MDA of 1.543E-5 uCi/filter and CRDL of 4.4E-06 uCi/filter.

Fraction 003 in batch ARS1-B23-01153 has elevated MDA for Pu-239/240 with ACT of -6.961E-8 uCi/filter, MDA of 1.778E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01152 has elevated MDA for Th-232 with ACT of 2.158E-8 uCi/filter, MDA of 6.483E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

ARS1-B23-01152: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01153: 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 |

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/MDC 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 ingrowth 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-01-RC); 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).
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).
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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Analytical Reports

for

GES-AIS, LLC

Analytical Results



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(225) 228-1394

ARS Sample Delivery Group: ARS1-23-01419**Client Sample ID:** FBC-061923**Sample Collection Date:** 06/19/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01419-001**Date Received:** 06/28/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -4.235E-8 | 5.892E-8 | 1.329E-7 | 5.688E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 55.3% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-08

| 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 | 2.544E-8 | 5.707E-8 | 2.135E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 76.2% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | 1.441E-6 | 1.468E-6 | 1.474E-6 | 7.370E-7 | 0.00024 | U | uCi/filter | 07/07/23 15:59 | [REDACTED] | N/A |
| Cs-137 | -6.195E-7 | 1.446E-6 | 1.618E-6 | 8.090E-7 | 0.00048 | U | uCi/filter | 07/07/23 15:59 | [REDACTED] | N/A |
| Ra-226 | -8.668E-5 | 2.442E-5 | 3.168E-5 | 1.584E-5 | 4.4E-06 | U | uCi/filter | 07/07/23 15:59 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-08

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | -7.068E-7 | 1.973E-6 | 3.720E-6 | 1.715E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 94.8% |



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ARS Sample Delivery Group: ARS1-23-01419**Client Sample ID:** MSC01-061923**Sample Collection Date:** 06/22/23 15:05**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01419-002**Date Received:** 06/28/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -5.082E-8 | 7.449E-8 | 1.650E-7 | 7.104E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 50.6% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | -6.466E-9 | 4.204E-8 | 9.122E-8 | 3.685E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 62.5% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 4.893E-6 | 2.568E-6 | 2.724E-6 | 1.362E-6 | NP | | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |
| Co-60 | -6.188E-7 | 1.101E-6 | 1.190E-6 | 5.950E-7 | 0.00024 | U | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |
| Cs-137 | 3.898E-7 | 7.466E-7 | 8.668E-7 | 4.334E-7 | 0.00048 | U | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |
| K-40 | 4.004E-5 | 1.003E-5 | 9.265E-6 | 4.633E-6 | NP | | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |
| Ra-226 | -1.456E-5 | 1.468E-5 | 1.543E-5 | 7.715E-6 | 4.4E-06 | U | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |
| Ra-228 | 4.893E-6 | 2.568E-6 | 2.724E-6 | 1.362E-6 | NP | | uCi/filter | 07/07/23 16:00 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-09

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 3.536E-7 | 1.997E-6 | 3.572E-6 | 1.645E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 93.1% |



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ARS Sample Delivery Group: ARS1-23-01419**Client Sample ID:** MSC02-061923**Sample Collection Date:** 06/22/23 15:04**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01419-003**Date Received:** 06/28/23**Report Date:** 07/21/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01153-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -6.961E-8 | 8.207E-8 | 1.778E-7 | 7.843E-8 | 4.8E-08 | U | uCi/filter | 07/19/23 3:26 | [REDACTED] | 52.7% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01152-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 2.158E-8 | 3.673E-8 | 6.483E-8 | 2.510E-8 | 1.4E-08 | U | uCi/filter | 07/15/23 2:59 | [REDACTED] | 73.0% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01092-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -3.906E-7 | 1.565E-6 | 1.609E-6 | 8.045E-7 | 0.00024 | U | uCi/filter | 07/08/23 13:35 | [REDACTED] | N/A |
| Cs-137 | -2.818E-7 | 1.386E-6 | 1.560E-6 | 7.800E-7 | 0.00048 | U | uCi/filter | 07/08/23 13:35 | [REDACTED] | N/A |
| Pb-212 | 2.112E-6 | 1.610E-6 | 1.828E-6 | 9.140E-7 | NP | | uCi/filter | 07/08/23 13:35 | [REDACTED] | N/A |
| Ra-226 | 1.758E-5 | 1.426E-5 | 1.758E-5 | 8.790E-6 | 4.4E-06 | U | uCi/filter | 07/08/23 13:35 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01158-10

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | -9.496E-7 | 2.109E-6 | 3.962E-6 | 1.840E-6 | 2.4E-05 | U | uCi/filter | 07/14/23 12:06 | [REDACTED] | 95.6% |



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QC Summary



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QC Sample Results

Analytical Batch: ARS1-B23-01092

Lab Sample ID: ARS1-B23-01092-01

Method: EPA 901.1M

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/06/23 15:18

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Am-241 | 33.065 | 31.611 | | uCi/filter | 95.6 | 75 - 125 |
| Co-60 | 20.928 | 22.331 | | uCi/filter | 106.7 | 75 - 125 |
| Cs-137 | 12.996 | 13.346 | | uCi/filter | 102.7 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01092

Lab Sample ID: ARS1-B23-01092-02

Method: EPA 901.1M

Sample Type: LCSD

Matrix: Air Filter

Analysis Date: 07/06/23 15:30

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Am-241 | 33.065 | 31.777 | | uCi/filter | 96.1 | 75 - 125 | 0.5 | 25 | 0.093 | 3 |
| Co-60 | 20.928 | 22.068 | | uCi/filter | 105.4 | 75 - 125 | 1.2 | 25 | 0.309 | 3 |
| Cs-137 | 12.996 | 13.316 | | uCi/filter | 102.5 | 75 - 125 | 0.2 | 25 | 0.059 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01092**Sample Type:** MBL**Lab Sample ID:** ARS1-B23-01092-03**Matrix:** Air Filter**Method:** EPA 901.1M**Analysis Date:** 07/06/23 14:28

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|-------|----------|------|----------------|
| Ac-228 | -0.004 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| Am-241 | -1.042E-4 | 0.001 | 0.002 | 0.001 | U | uCi/filter |
| Bi-212 | -0.004 | 0.013 | 0.013 | 0.007 | U | uCi/filter |
| Bi-214 | -0.004 | 0.004 | 0.004 | 0.002 | U | uCi/filter |
| Co-60 | -0.001 | 0.002 | 0.002 | 9.500E-4 | U | uCi/filter |
| Cs-137 | -8.068E-4 | 0.002 | 0.002 | 8.650E-4 | U | uCi/filter |
| Eu-152 | 6.050E-4 | 0.001 | 0.002 | 8.750E-4 | U | uCi/filter |
| Eu-154 | -1.956E-4 | 0.001 | 0.001 | 6.950E-4 | U | uCi/filter |
| K-40 | -0.025 | 0.025 | 0.025 | 0.012 | U | uCi/filter |
| Pa-234 | 7.243E-4 | 0.001 | 0.002 | 9.700E-4 | U | uCi/filter |
| Pb-210 | -0.013 | 0.016 | 0.017 | 0.009 | U | uCi/filter |
| Pb-212 | 4.850E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-214 | 0.003 | 0.003 | 0.003 | 0.001 | U | uCi/filter |
| Ra-226 | -0.080 | 0.024 | 0.031 | 0.016 | U | uCi/filter |
| Ra-228 | -0.004 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| Th-234 | -0.007 | 0.016 | 0.017 | 0.009 | U | uCi/filter |
| Tl-208 | -0.001 | 0.002 | 0.002 | 8.650E-4 | U | uCi/filter |
| U-235 | -0.001 | 0.006 | 0.006 | 0.003 | U | uCi/filter |
| U-238 | -0.007 | 0.016 | 0.017 | 0.009 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01419

Analytical Batch: ARS1-B23-01092

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|------------|-------------|
| ARS1-B23-01092-01 | | Lab Control Sample | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-02 | | Lab Control Sample Duplicate | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-03 | | Method Blank | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-08 | ARS1-23-01419-001 | FBC-061923 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-09 | ARS1-23-01419-002 | MSC01-061923 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01092-10 | ARS1-23-01419-003 | MSC02-061923 | Air Filter | EPA 901.1M | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Lab Sample ID: ARS1-B23-01152-01

Method: Eichrom ACW10

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/15/23 2:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Th-230 | 5.253E-6 | 5.906E-6 | | uCi/filter | 112.4 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01152-02

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 07/15/23 2:59

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Th-230 | 5.268E-6 | 5.660E-6 | | uCi/filter | 107.4 | 75 - 125 | 4.2 | 25 | 0.466 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01152

Lab Sample ID: ARS1-B23-01152-03

Method: Eichrom ACW10

Sample Type: MBL

Matrix: Air Filter

Analysis Date: 07/15/23 2:59

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| Th-228 | 7.644E-8 | 6.483E-8 | 9.801E-8 | 4.104E-8 | U | uCi/filter |
| Th-230 | 4.672E-8 | 4.614E-8 | 7.018E-8 | 2.717E-8 | U | uCi/filter |
| Th-232 | -5.829E-9 | 3.023E-8 | 7.004E-8 | 2.712E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01419

Analytical Batch: ARS1-B23-01152

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-B23-01152-01 | | Lab Control Sample | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-03 | | Method Blank | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-08 | ARS1-23-01419-001 | FBC-061923 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-09 | ARS1-23-01419-002 | MSC01-061923 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01152-10 | ARS1-23-01419-003 | MSC02-061923 | Air Filter | Eichrom ACW10 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Lab Sample ID: ARS1-B23-01153-01

Method: Eichrom ACW03

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/19/23 3:26

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|------------|-------------|-----------------|------|----------------|-------|--------------|
| Pu-239/240 | 7.810E-6 | 7.683E-6 | | uCi/filter | 98.4 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01153-02

Matrix: Air Filter

Method: Eichrom ACW03

Analysis Date: 07/19/23 3:26

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|------------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Pu-239/240 | 7.740E-6 | 7.602E-6 | | uCi/filter | 98.2 | 75 - 125 | 1.1 | 25 | 0.117 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01153

Lab Sample ID: ARS1-B23-01153-03

Method: Eichrom ACW03

Sample Type: MBL

Matrix: Air Filter

Analysis Date: 07/19/23 3:26

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|------------|-----------------|-------------|----------|----------|------|----------------|
| Pu-238 | -4.595E-8 | 1.041E-7 | 2.059E-7 | 9.257E-8 | U | uCi/filter |
| Pu-239/240 | -5.360E-8 | 9.152E-8 | 1.879E-7 | 8.355E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01419

Analytical Batch: ARS1-B23-01153

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-B23-01153-01 | | Lab Control Sample | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-03 | | Method Blank | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-08 | ARS1-23-01419-001 | FBC-061923 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-09 | ARS1-23-01419-002 | MSC01-061923 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01153-10 | ARS1-23-01419-003 | MSC02-061923 | Air Filter | Eichrom ACW03 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Lab Sample ID: ARS1-B23-01158-01

Method: Eichrom SRW01

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/14/23 12:06

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| SR-90 | 2.035E-5 | 2.013E-5 | | uCi/filter | 98.9 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01158-02

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 07/14/23 12:06

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| SR-90 | 2.011E-5 | 1.953E-5 | | uCi/filter | 97.1 | 75 - 125 | 3.0 | 25 | 0.274 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01158

Sample Type: MBL

Lab Sample ID: ARS1-B23-01158-03

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 07/14/23 12:06

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| SR-90 | 1.444E-6 | 2.527E-6 | 4.325E-6 | 2.000E-6 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01419

Analytical Batch: ARS1-B23-01158

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|---------------|-------------|
| ARS1-B23-01158-01 | | Lab Control Sample | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-03 | | Method Blank | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-08 | ARS1-23-01419-001 | FBC-061923 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-09 | ARS1-23-01419-002 | MSC01-061923 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01158-10 | ARS1-23-01419-003 | MSC02-061923 | Air Filter | Eichrom SRW01 | N/A |



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Analytical Reports

for

GES-AIS, LLC

Batch QC



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------------|
| Analytical Batch | ARS1-B23-01092 |
| SDG | ARS1-23-01419 |
| 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 | 07/06/23 15:18 | Analysis Technician | [REDACTED] | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|-------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01092-01 | LCS | AM-241 | 31.611 | 2.455 | 33.065 | 95.6 | 0.113 |
| ARS1-B23-01092-01 | LCS | CO-60 | 22.331 | 1.190 | 20.928 | 106.7 | 0.448 |
| ARS1-B23-01092-01 | LCS | CS-137 | 13.346 | 0.711 | 12.996 | 102.7 | 0.072 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/06/23 15:30 | Analysis Technician | [REDACTED] | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|------------|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| AM-241 | 31.611 | 2.455 | 31.777 | 2.468 | 0.093 | 0.5 | |
| CO-60 | 22.331 | 1.190 | 22.068 | 1.171 | 0.309 | 1.2 | |
| CS-137 | 13.346 | 0.711 | 13.316 | 0.710 | 0.059 | 0.2 | |

| Method Blank | | | Analysis Date | 07/06/23 14:28 | Analysis Technician | [REDACTED] | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01092-03 | MBL | AC-228 | -0.004 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | AM-241 | -1.042E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | BI-212 | -0.004 | 0.013 | 0.013 | U | |
| ARS1-B23-01092-03 | MBL | BI-214 | -0.004 | 0.004 | 0.004 | U | |
| ARS1-B23-01092-03 | MBL | CO-60 | -0.001 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | CS-137 | -8.068E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | EU-152 | 6.050E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | EU-154 | -1.956E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-01092-03 | MBL | K-40 | -0.025 | 0.025 | 0.025 | U | |
| ARS1-B23-01092-03 | MBL | PA-234 | 7.243E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | PB-210 | -0.013 | 0.016 | 0.017 | U | |
| ARS1-B23-01092-03 | MBL | PB-212 | 4.850E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | PB-214 | 0.003 | 0.003 | 0.003 | U | |
| ARS1-B23-01092-03 | MBL | RA-226 | -0.080 | 0.024 | 0.031 | U | |
| ARS1-B23-01092-03 | MBL | RA-228 | -0.004 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | TH-234 | -0.007 | 0.016 | 0.017 | U | |
| ARS1-B23-01092-03 | MBL | TL-208 | -0.001 | 0.002 | 0.002 | U | |
| ARS1-B23-01092-03 | MBL | U-235 | -0.001 | 0.006 | 0.006 | U | |
| ARS1-B23-01092-03 | MBL | U-238 | -0.007 | 0.016 | 0.017 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------|
| Analytical Batch | ARS1-B23-01152 |
| SDG | ARS1-23-01419 |
| 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 | 07/15/23 02:59 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01152-01 | LCS | TH-230 | 5.906E-6 | 7.486E-7 | 5.253E-6 | 112.4 | 6.187E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/15/23 02:59 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| TH-230 | 5.906E-6 | 7.486E-7 | 5.660E-6 | 7.126E-7 | 0.466 | 4.2 | |

| Method Blank | | | Analysis Date | 07/15/23 02:59 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01152-03 | MBL | TH-228 | 7.644E-8 | 6.483E-8 | 9.801E-8 | U | |
| ARS1-B23-01152-03 | MBL | TH-230 | 4.672E-8 | 4.614E-8 | 7.018E-8 | U | |
| ARS1-B23-01152-03 | MBL | TH-232 | -5.829E-9 | 3.023E-8 | 7.004E-8 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------------------------|
| Analytical Batch | ARS1-B23-01153 |
| SDG | ARS1-23-01419 |
| 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 | 07/19/23 03:26 | Analysis Technician | | |
|---------------------------|---------|------------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01153-01 | LCS | PU-239/240 | 7.683E-6 | 9.664E-7 | 7.810E-6 | 98.4 | 4.540E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/19/23 03:26 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| PU-239/240 | 7.683E-6 | 9.664E-7 | 7.602E-6 | 9.554E-7 | 0.117 | 1.1 | |

| Method Blank | | | Analysis Date | 07/19/23 03:26 | Analysis Technician | | |
|--------------------------|---------|------------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01153-03 | MBL | PU-238 | -4.595E-8 | 1.041E-7 | 2.059E-7 | U | |
| ARS1-B23-01153-03 | MBL | PU-239/240 | -5.360E-8 | 9.152E-8 | 1.879E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------|
| Analytical Batch | ARS1-B23-01158 |
| SDG | ARS1-23-01419 |
| 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 | 07/14/23 12:06 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01158-01 | LCS | SR-90 | 2.013E-5 | 3.088E-6 | 2.035E-5 | 98.9 | 4.057E-7 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/14/23 12:06 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| SR-90 | 2.013E-5 | 3.088E-6 | 1.953E-5 | 2.995E-6 | 0.274 | 3.0 | |

| Method Blank | | | Analysis Date | 07/14/23 12:06 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01158-03 | MBL | SR-90 | 1.444E-6 | 2.527E-6 | 4.325E-6 | U | |



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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 # █████ 062723RADC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------|
| 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 █████ | |
| WBS Code: J310000600 | Ship to: 2609 North River Road, Port Allen, LA 70767-3469 | |

| Comments: Please return coolers to █████ 200 Fisher Ave; San Francisco, CA 94124 | | | | | <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 < 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 | | | | | 15 | 15 | 5 | | | | | | | | | | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | | | | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | | | | | | | | |
| 1 FBC-061923 | AQ | 06/19/2023 | 0800 | X X X █████ | | | | | FIELDQC | FB1 | 0.00 | | | 0.00 | 1 | | | | | | |
| 2 MSC01-061923 | A | 06/22/2023 | 1505 | X X X █████ | 6/27/23 | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | | |
| 3 MSC02-061923 | A | 06/22/2023 | 1504 | X X X █████ | 6/27/23 | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | |
| Turnaround Time: 28 days | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
|------------------------------|---------|------|--------------------------|---------|------|-------------------------------------------------------------|
| ██████████ | 6/27/23 | 1200 | ██████████ | 6/27/23 | 1200 | Shipping Date: 6/27/2023 / FEDEX / 7724 3136 8231 |
| | | | ██████████ | 6-28-23 | 1000 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | |
| | | | | | | |



Procedures: GES-003 / EPA 900.0M
File ID Number: 062723RADC

Start Date: 6/19/23
Stop Date: 6/22/23

Field Entry

| Station | Sample ID | Date In: | Time In: | Date Out: | Time Out: | Flow Rate (LPM) | Flow Rate (LPM) | Julian Date for Run | Total Run Time (Days) | Total Run Time (Hours) | Average Flow | Average Flow Rate (CFM) | Average Flow Rate (CFM) | Average Flow Rate (Cu M/min) | Flow Rate (Cu M/h) | Total Flow (L) |
|---------|--------------|-----------|----------|-----------|-----------|-----------------|-----------------|---------------------|-----------------------|------------------------|--------------|-------------------------|-------------------------|------------------------------|--------------------|----------------|
| 1 MSC01 | FBC-061923 | 6/19/2023 | 800 | 6/19/2023 | 800 | | | | | | | | | | | 285,540 |
| 1 MSC01 | MSC01-061923 | 06/19/23 | 7:46 | 06/22/23 | 15:05 | 60 | 60 | 173 | 3.30 | 79.32 | 4759.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 |
| 2 MSC02 | MSC02-061923 | 06/19/23 | 8:04 | 06/22/23 | 15:04 | 60 | 60 | 173 | 3.29 | 79.00 | 4740.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 |

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/in)^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 | ARS1-23-01419 | | TAT Days | 28 Calendar Days | | Project Type | Environmental | |
| Sample Count | 3 | Rpt Level | 2a | Date Received | 06/28/2023 | | COC Number | 062723RADC |
| Client | GES-AIS, LLC | | Discrepancy Resol | N/A | | PO Number | Parcel C Air Monitoring RAD | |
| Client Code | 1138 | | Client Deadline | 07/26/2023 | | 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 | | | | | | | | | Comments |
|--------------------------------------------|--------------|------------|------------------|------------------|------------------|------|-------|---------|----------|
| FR | Name | Matrix | Start Date | End Date | Disp | Hold | Arch | Storage | Comments |
| 001 | FBC-061923 | Air Filter | 06/19/2023 07:59 | 06/19/2023 08:00 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442347 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/19/2023 07:59 | AF Volume (CuM): | | 0.001 | | |
| 002 | MSC01-061923 | Air Filter | 06/22/2023 15:04 | 06/22/2023 15:05 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442348 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/22/2023 15:04 | AF Volume (CuM): | | 0.001 | | |
| 003 | MSC02-061923 | Air Filter | 06/22/2023 15:03 | 06/22/2023 15:04 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442349 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/22/2023 15:03 | AF Volume (CuM): | | 0.001 | | |

SDG Report - Analysis Assignments

| | | | |
|---------------|----------------------|-----------------------|-------------|
| SDG | ARS1-23-01419 | Sample Count | 3 |
| Client | GES-AIS, LLC | Analysis Count | 4-12 |

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: 2a

| 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 | |
| Pu-239/240 (15117-48-3) | | | | 4.8E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| ASP-TH-AF | WRAD | uCi | filter | N/A | PALA-RAD-031 | | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL | |
| Th-232 (7440-29-1) | | | | 1.4E-08 uCi/filter | 75/125 | 60/140 | 30/110 | 30/110 | 1 | 25 | N/A | |
| GAM-A-AF | WGAM | uCi | filter | N/A | PALA-RAD-007 | | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL | |
| | 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 |

User

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| | | | | | | | | | | | |
|-------------|---------------------|-----|--------|-----------------------|--------------|----------|------------|-------------|-----|-----|------------|
| 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 | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| | 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 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-TH-AF | 001 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| GAM-A-AF | 001 | uCi | filter | N/A | | 19 |
| | | 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 | | |

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| 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 |

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| Group | uCi | filter | N/A | 19 |
|-----------------------|-----|--------|--------|----|
| | | | | |
| 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 | |
| Group | uCi | filter | N/A | 1 |
| | | | | |
| Parcel C Rad Sampling | | | Sr-90 | |
| Group | uCi | filter | N/A | 1 |
| | | | | |
| Parcel C Rad Sampling | | | Sr-90 | |
| Group | uCi | filter | N/A | 1 |
| | | | | |
| Parcel C Rad Sampling | | | Sr-90 | |

PALA Sample Receipt Inspection Form

Client Name: GES-AIS

SDG: ARS1-23-01419

| | | | | | |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------|---------------------------------------------------------------------|
| Sample Custodian: | Survey Start Date: | <u>6-28-23</u> | Survey Start Time: | <u>1015</u> | |
| Thermometer ID: | E1054012261 | Calibration Due Date: | <u>1-12-24</u> | pH Paper Lot# | <u>NA</u> |
| Exposure Rate Meter + Probe Unit ID: | <u>2734629</u> | Calibration Due Date: | <u>9-13-23</u> | Background: | <u>4</u> $\mu\text{R}/\text{hr}$ |
| Count Rate Meter + Probe Unit ID: | <u>268993</u> | Calibration Due Date: | <u>9-19-23</u> | Background: | <u>20</u> cpm |
| Delivery Type (circle one): | Direct | Lock Box | Commercial Carrier | <u>FEDEX</u> | Total # of ESCs: <u>1</u> |
| <small>*True temperature is recorded which includes any applicable correction factors.</small> | | | | | |
| 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>7724313658231</u> | <u>5</u> | <u>20</u> | <u>30</u> | <u>NA</u> | AQ WD WG WO |
| B: | | | | | WS WW SI UR |
| C: | | | | | SO OL BI VG |
| D: | | | | | WP SM AF |
| E: | | | | | |
| F: | | | | | |
| Visual Inspection: <u>External Shipping Container</u> | | (Circle response) | | | |
| Good Condition with no Leaks or Tears | <input checked="" type="checkbox"/> Yes | No | Sample Containers in good condition | <input checked="" type="checkbox"/> Yes | No |
| Marked Radioactive | Yes | <input checked="" type="checkbox"/> No | No spills or leaks | <input checked="" type="checkbox"/> Yes | No |
| UN2910 | Yes | <input checked="" type="checkbox"/> No | Marked Radioactive | <input checked="" type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Security Seals | <input checked="" type="checkbox"/> Yes | No | Durable labels w/indelible ink | <input checked="" type="checkbox"/> Yes | No |
| If yes, intact? | <input checked="" type="checkbox"/> Yes | No | COC relinquished/received correctly | <input checked="" type="checkbox"/> Yes | No |
| <u>Internal Shipping Container</u> | | N/A | Adequate volume/filled correctly | <input checked="" type="checkbox"/> Yes | No |
| COC's Present | <input checked="" type="checkbox"/> Yes | No | Hold Time sufficient for analysis | <input checked="" type="checkbox"/> Yes | No |
| Well packaged container with no signs of leakage | <input checked="" type="checkbox"/> Yes | No | For VOC/Radon, Head space? | Yes | No |
| | | | If yes, <6mm? | Yes | No |
| | | | # of containers received matches # on COC | <input checked="" type="checkbox"/> Yes | No |
| Comments: | | Samples received on ice? | | | |
| | | Type (circle one): <input checked="" type="checkbox"/> Bagged Ice <input checked="" type="checkbox"/> Loose Ice <input checked="" type="checkbox"/> Blue Ice <input checked="" type="checkbox"/> N/A | | | |

PALA Sample Survey Form

Client Name: GES-AIS
SDG: ARS1-23-01419

Pipette ID: NA

Tip Lot#: NA

Disposable pipette lot#: NA

Sample Custodian

Survey End Date: 6-28-23 Survey/nH End Time: 1020

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample receiving must be re-checked after ~ 24 hours.

If YES: pH re-check date/time:

Analyst: _____

pH strip lot #:

Were all re-checked samples' pH < 2.2? Yes _____ 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: 20JUN23
 ACTWGT: 1.00 LB
 CAD: 254128867/INET4610

BILL SENDER

ARS ALEUT ANALYTICAL, LLC
2609 NORTH RIVER ROAD

PORT ALLEN LA 70767

(225) 381-2991

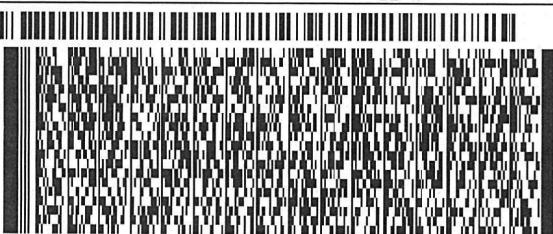
INV:

PO

REF: J31000 600 02 04 05

DEPT:

583.029AB/FE2D



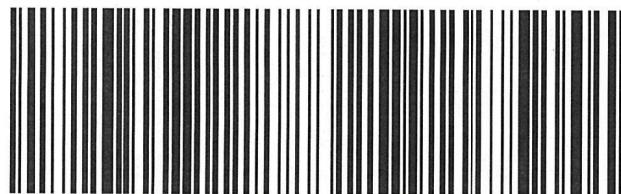
J232023040501uv

WED - 21 JUN 4:30P
STANDARD OVERNIGHT

TRK# 7724 3136 8231
 0201

XN OPLA

70767
 LA-US MSY



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Port Allen, Louisiana 70767
(225) 228-1394

ARS Aleut Analytical, LLC

Laboratory Analytical Report

ARS1-23-01456

GES-AIS, LLC
[REDACTED]

1501 West Fountainhead Parkway
Suite 550
Tempe, AZ 85420
[REDACTED]

COC Number [REDACTED] 070523RADC
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,
who can be reached by email at 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. A statement of uncertainty for each analysis is available upon request. 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 | LA011312024-1 |
| 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 for additional information.



2609 North River Road • Port Allen, Louisiana 70767

(225) 228-1394

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-062623 | ARS1-23-01456-001 |
| MSC01-062623 | ARS1-23-01456-002 |
| MSC02-062623 | ARS1-23-01456-003 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|--------|----------------|---------------|--------------|-------------|----------------|--------------------|
| 001 | 06/26/23 08:00 | 07/06/23 | ASP-PU239-AF | As Received | 07/31/23 06:55 | 08/03/23 03:23 |
| 001 | 06/26/23 08:00 | 07/06/23 | ASP-TH-AF | As Received | 07/27/23 10:00 | 07/29/23 01:20 |
| 001 | 06/26/23 08:00 | 07/06/23 | GAM-A-AF | As Received | NA | 07/19/23 14:07 |
| 001 | 06/26/23 08:00 | 07/06/23 | GPC-SR90-AF | As Received | 08/01/23 12:45 | 08/02/23 10:23 |
| 002 | 06/29/23 12:36 | 07/06/23 | ASP-PU239-AF | As Received | 07/31/23 06:55 | 08/03/23 03:23 |
| 002 | 06/29/23 12:36 | 07/06/23 | ASP-TH-AF | As Received | 07/27/23 10:00 | 07/29/23 01:20 |
| 002 | 06/29/23 12:36 | 07/06/23 | GAM-A-AF | As Received | NA | 07/20/23 14:31 |
| 002 | 06/29/23 12:36 | 07/06/23 | GPC-SR90-AF | As Received | 08/01/23 12:45 | 08/02/23 10:23 |
| 003 | 06/29/23 12:31 | 07/06/23 | ASP-PU239-AF | As Received | 07/31/23 06:55 | 08/03/23 03:23 |
| 003 | 06/29/23 12:31 | 07/06/23 | ASP-TH-AF | As Received | 07/27/23 10:00 | 07/29/23 01:20 |
| 003 | 06/29/23 12:31 | 07/06/23 | GAM-A-AF | As Received | NA | 07/21/23 14:29 |
| 003 | 06/29/23 12:31 | 07/06/23 | GPC-SR90-AF | As Received | 08/01/23 12:45 | 08/02/23 10:23 |

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-B23-01299 has elevated MDA for Pu-239/240 with ACT of -1.246E-7 uCi/filter, MDA of 1.595E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 001 in batch ARS1-B23-01285 has elevated MDA for Th-232 with ACT of 5.907E-8 uCi/filter, MDA of 7.098E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

Fraction 002 in batch ARS1-B23-01299 has elevated MDA for Pu-239/240 with ACT of -5.315E-8 uCi/filter, MDA of 1.069E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01299 has elevated MDA for Pu-239/240 with ACT of -8.219E-8 uCi/filter, MDA of 1.200E-7 uCi/filter and CRDL of 4.8E-08 uCi/filter.

Fraction 003 in batch ARS1-B23-01285 has elevated MDA for Th-232 with ACT of 1.200E-8 uCi/filter, MDA of 7.207E-8 uCi/filter and CRDL of 1.4E-08 uCi/filter.

ARS1-B23-01285: ROI's adjusted to better fit the peaks of interest.

ARS1-B23-01299: 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 |

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/MDC 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 ingrowth 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-03-RC); 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). 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). 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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Analytical Results



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(225) 228-1394

ARS Sample Delivery Group: ARS1-23-01456**Client Sample ID:** FBC-062623**Sample Collection Date:** 06/26/23 8:00**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01456-001**Date Received:** 07/06/23**Report Date:** 08/04/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01299-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -1.246E-7 | 6.847E-8 | 1.595E-7 | 7.171E-8 | 4.8E-08 | U | uCi/filter | 08/03/23 3:23 | [REDACTED] | 67.2% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01285-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 5.907E-8 | 4.964E-8 | 7.098E-8 | 2.749E-8 | 1.4E-08 | U | uCi/filter | 07/29/23 1:20 | [REDACTED] | 67.5% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01204-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -5.140E-7 | 1.659E-6 | 1.699E-6 | 8.495E-7 | 0.00024 | U | uCi/filter | 07/19/23 14:07 | [REDACTED] | N/A |
| Cs-137 | -8.222E-7 | 1.517E-6 | 1.690E-6 | 8.450E-7 | 0.00048 | U | uCi/filter | 07/19/23 14:07 | [REDACTED] | N/A |
| Ra-226 | 1.778E-5 | 1.404E-5 | 1.778E-5 | 8.890E-6 | 4.4E-06 | U | uCi/filter | 07/19/23 14:07 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01305-04

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.821E-6 | 3.134E-6 | 5.353E-6 | 2.483E-6 | 2.4E-05 | U | uCi/filter | 08/02/23 10:23 | [REDACTED] | 70.2% |



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ARS Sample Delivery Group: ARS1-23-01456**Client Sample ID:** MSC01-062623**Sample Collection Date:** 06/29/23 12:36**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01456-002**Date Received:** 07/06/23**Report Date:** 08/04/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01299-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -5.315E-8 | 4.467E-8 | 1.069E-7 | 4.627E-8 | 4.8E-08 | U | uCi/filter | 08/03/23 3:23 | [REDACTED] | 76.2% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01285-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|-------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 5.851E-8 | 3.695E-8 | 1.586E-8 | 0.000 | 1.4E-08 | | uCi/filter | 07/29/23 1:20 | [REDACTED] | 69.2% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01204-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Co-60 | -5.234E-7 | 1.298E-6 | 2.172E-6 | 1.086E-6 | 0.00024 | U | uCi/filter | 07/20/23 14:31 | [REDACTED] | N/A |
| Cs-137 | 1.507E-7 | 1.394E-6 | 1.573E-6 | 7.865E-7 | 0.00048 | U | uCi/filter | 07/20/23 14:31 | [REDACTED] | N/A |
| Ra-226 | 1.817E-5 | 1.506E-5 | 1.817E-5 | 9.085E-6 | 4.4E-06 | U | uCi/filter | 07/20/23 14:31 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01305-05

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | -3.531E-7 | 2.950E-6 | 5.419E-6 | 2.505E-6 | 2.4E-05 | U | uCi/filter | 08/02/23 10:23 | [REDACTED] | 72.8% |



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ARS Sample Delivery Group: ARS1-23-01456**Client Sample ID:** MSC02-062623**Sample Collection Date:** 06/29/23 12:31**Sample Matrix:** Air Filter**Percent Solids:** N/A**Request or PO Number:** Parcel C Air Monitoring RAD**ARS Sample ID:** ARS1-23-01456-003**Date Received:** 07/06/23**Report Date:** 08/04/23

Radiochemistry

Analysis Method: Eichrom ACW03**ABatch Sample ID:** ARS1-B23-01299-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Pu-239/240 | -8.219E-8 | 4.785E-8 | 1.200E-7 | 5.256E-8 | 4.8E-08 | U | uCi/filter | 08/03/23 3:23 | [REDACTED] | 74.6% |

Analysis Method: Eichrom ACW10**ABatch Sample ID:** ARS1-B23-01285-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Th-232 | 1.200E-8 | 3.720E-8 | 7.207E-8 | 2.791E-8 | 1.4E-08 | U | uCi/filter | 07/29/23 1:20 | [REDACTED] | 68.1% |

Analysis Method: EPA 901.1M**ABatch Sample ID:** ARS1-B23-01204-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| Ac-228 | 7.884E-6 | 4.112E-6 | 4.622E-6 | 2.311E-6 | NP | | uCi/filter | 07/21/23 14:29 | [REDACTED] | N/A |
| Co-60 | 5.138E-7 | 1.539E-6 | 1.579E-6 | 7.895E-7 | 0.00024 | U | uCi/filter | 07/21/23 14:29 | [REDACTED] | N/A |
| Cs-137 | -4.131E-7 | 1.467E-6 | 1.646E-6 | 8.230E-7 | 0.00048 | U | uCi/filter | 07/21/23 14:29 | [REDACTED] | N/A |
| Ra-226 | 1.827E-5 | 1.545E-5 | 1.827E-5 | 9.135E-6 | 4.4E-06 | U | uCi/filter | 07/21/23 14:29 | [REDACTED] | N/A |
| Ra-228 | 7.884E-6 | 4.112E-6 | 4.622E-6 | 2.311E-6 | NP | | uCi/filter | 07/21/23 14:29 | [REDACTED] | N/A |

Analysis Method: Eichrom SRW01**ABatch Sample ID:** ARS1-B23-01305-06

| Analysis Description | Analysis Results | CSU +/- 2 s | MDA | DLC | CRDL | Qual | Analysis Units | Analysis Date/Time | Analysis Technician | Tracer/Chem Recovery |
|----------------------|------------------|-------------|----------|----------|---------|------|----------------|--------------------|---------------------|----------------------|
| SR-90 | 1.233E-6 | 2.418E-6 | 4.164E-6 | 1.928E-6 | 2.4E-05 | U | uCi/filter | 08/02/23 10:23 | [REDACTED] | 92.2% |



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QC Summary



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QC Sample Results

Analytical Batch: ARS1-B23-01204

Sample Type: LCS

Lab Sample ID: ARS1-B23-01204-01

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 07/22/23 10:56

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Am-241 | 33.065 | 31.538 | | uCi/filter | 95.4 | 75 - 125 |
| Co-60 | 20.928 | 22.340 | | uCi/filter | 106.7 | 75 - 125 |
| Cs-137 | 12.996 | 13.410 | | uCi/filter | 103.2 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01204

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01204-02

Matrix: Air Filter

Method: EPA 901.1M

Analysis Date: 07/22/23 11:08

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Am-241 | 33.065 | 31.721 | | uCi/filter | 95.9 | 75 - 125 | 0.6 | 25 | 0.103 | 3 |
| Co-60 | 20.928 | 22.153 | | uCi/filter | 105.9 | 75 - 125 | 0.8 | 25 | 0.218 | 3 |
| Cs-137 | 12.996 | 13.658 | | uCi/filter | 105.1 | 75 - 125 | 1.8 | 25 | 0.477 | 3 |



QC Sample Results

Analytical Batch: ARS1-B23-01204**Sample Type:** MBL**Lab Sample ID:** ARS1-B23-01204-03**Matrix:** Air Filter**Method:** EPA 901.1M**Analysis Date:** 07/18/23 14:08

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|-------|----------|------|----------------|
| Ac-228 | -0.005 | 0.007 | 0.006 | 0.003 | U | uCi/filter |
| Am-241 | 4.797E-4 | 0.001 | 0.002 | 0.001 | U | uCi/filter |
| Bi-212 | -0.004 | 0.013 | 0.014 | 0.007 | U | uCi/filter |
| Bi-214 | -0.004 | 0.004 | 0.004 | 0.002 | U | uCi/filter |
| Co-60 | 9.623E-4 | 0.002 | 0.002 | 8.050E-4 | U | uCi/filter |
| Cs-137 | -6.244E-4 | 0.001 | 0.002 | 8.050E-4 | U | uCi/filter |
| Eu-152 | 4.350E-4 | 0.001 | 0.002 | 8.600E-4 | U | uCi/filter |
| Eu-154 | -1.638E-4 | 0.001 | 0.001 | 6.750E-4 | U | uCi/filter |
| K-40 | -0.033 | 0.026 | 0.026 | 0.013 | U | uCi/filter |
| Pa-234 | -7.642E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-210 | 0.004 | 0.016 | 0.017 | 0.008 | U | uCi/filter |
| Pb-212 | -8.511E-4 | 0.002 | 0.002 | 0.001 | U | uCi/filter |
| Pb-214 | -0.002 | 0.003 | 0.003 | 0.002 | U | uCi/filter |
| Ra-226 | -0.023 | 0.025 | 0.026 | 0.013 | U | uCi/filter |
| Ra-228 | -0.005 | 0.007 | 0.006 | 0.003 | U | uCi/filter |
| Th-234 | -0.002 | 0.016 | 0.020 | 0.010 | U | uCi/filter |
| Tl-208 | -3.558E-4 | 0.002 | 0.002 | 8.250E-4 | U | uCi/filter |
| U-235 | -0.002 | 0.006 | 0.008 | 0.004 | U | uCi/filter |
| U-238 | -0.002 | 0.016 | 0.020 | 0.010 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01456

Analytical Batch: ARS1-B23-01204

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|------------|-------------|
| ARS1-B23-01204-01 | | Lab Control Sample | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01204-02 | | Lab Control Sample Duplicate | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01204-03 | | Method Blank | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01204-04 | ARS1-23-01456-001 | FBC-062623 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01204-05 | ARS1-23-01456-002 | MSC01-062623 | Air Filter | EPA 901.1M | N/A |
| ARS1-B23-01204-06 | ARS1-23-01456-003 | MSC02-062623 | Air Filter | EPA 901.1M | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01285

Lab Sample ID: ARS1-B23-01285-01

Method: Eichrom ACW10

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 07/29/23 1:20

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| Th-230 | 5.237E-6 | 6.162E-6 | | uCi/filter | 117.6 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01285

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01285-02

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 07/29/23 1:20

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Th-230 | 5.227E-6 | 6.522E-6 | | uCi/filter | 124.8 | 75 - 125 | 5.7 | 25 | 0.627 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01285

Sample Type: MBL

Lab Sample ID: ARS1-B23-01285-03

Matrix: Air Filter

Method: Eichrom ACW10

Analysis Date: 07/29/23 1:20

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| Th-228 | 1.190E-8 | 7.188E-8 | 1.335E-7 | 5.871E-8 | U | uCi/filter |
| Th-230 | 8.281E-8 | 1.231E-7 | 2.087E-7 | 9.632E-8 | U | uCi/filter |
| Th-232 | -2.361E-8 | 8.186E-8 | 1.587E-7 | 7.135E-8 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01456

Analytical Batch: ARS1-B23-01285

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-B23-01285-01 | | Lab Control Sample | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01285-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01285-03 | | Method Blank | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01285-04 | ARS1-23-01456-001 | FBC-062623 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01285-05 | ARS1-23-01456-002 | MSC01-062623 | Air Filter | Eichrom ACW10 | N/A |
| ARS1-B23-01285-06 | ARS1-23-01456-003 | MSC02-062623 | Air Filter | Eichrom ACW10 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01299

Lab Sample ID: ARS1-B23-01299-01

Method: Eichrom ACW03

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 08/03/23 3:23

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|------------|-------------|-----------------|------|----------------|-------|--------------|
| Pu-239/240 | 7.782E-6 | 7.851E-6 | | uCi/filter | 100.9 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01299

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01299-02

Matrix: Air Filter

Method: Eichrom ACW03

Analysis Date: 08/03/23 3:23

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|------------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| Pu-239/240 | 7.754E-6 | 7.313E-6 | | uCi/filter | 94.3 | 75 - 125 | 7.1 | 25 | 0.785 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01299

Sample Type: MBL

Lab Sample ID: ARS1-B23-01299-03

Matrix: Air Filter

Method: Eichrom ACW03

Analysis Date: 08/03/23 3:23

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|------------|-----------------|-------------|----------|----------|------|----------------|
| Pu-238 | 0.000 | 9.669E-8 | 1.859E-7 | 8.115E-8 | U | uCi/filter |
| Pu-239/240 | -1.046E-7 | 1.141E-7 | 2.383E-7 | 1.073E-7 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01456

Analytical Batch: ARS1-B23-01299

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-B23-01299-01 | | Lab Control Sample | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01299-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01299-03 | | Method Blank | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01299-04 | ARS1-23-01456-001 | FBC-062623 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01299-05 | ARS1-23-01456-002 | MSC01-062623 | Air Filter | Eichrom ACW03 | N/A |
| ARS1-B23-01299-06 | ARS1-23-01456-003 | MSC02-062623 | Air Filter | Eichrom ACW03 | N/A |



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QC Sample Results

Analytical Batch: ARS1-B23-01305

Lab Sample ID: ARS1-B23-01305-01

Method: Eichrom SRW01

Sample Type: LCS

Matrix: Air Filter

Analysis Date: 08/02/23 10:23

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits |
|---------|-------------|-----------------|------|----------------|-------|--------------|
| SR-90 | 1.966E-5 | 2.232E-5 | | uCi/filter | 113.6 | 75 - 125 |



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QC Sample Results

Analytical Batch: ARS1-B23-01305

Sample Type: LCSD

Lab Sample ID: ARS1-B23-01305-02

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 08/02/23 10:23

| Analyte | Spike Added | Analysis Result | Qual | Analysis Units | % Rec | % Rec Limits | RPD | RPD Limit | DER | DER Limit |
|---------|-------------|-----------------|------|----------------|-------|--------------|-----|-----------|-------|-----------|
| SR-90 | 1.989E-5 | 2.257E-5 | | uCi/filter | 113.4 | 75 - 125 | 1.1 | 25 | 0.097 | 3 |



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QC Sample Results

Analytical Batch: ARS1-B23-01305

Sample Type: MBL

Lab Sample ID: ARS1-B23-01305-03

Matrix: Air Filter

Method: Eichrom SRW01

Analysis Date: 08/02/23 10:23

| Analyte | Analysis Result | CSU +/- 2 s | MDA | DLC | Qual | Analysis Units |
|---------|-----------------|-------------|----------|----------|------|----------------|
| SR-90 | 5.591E-7 | 2.700E-6 | 4.810E-6 | 2.219E-6 | U | uCi/filter |



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QC Association Summary

ARS Sample Delivery Group: ARS1-23-01456

Analytical Batch: ARS1-B23-01305

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

| Batch Sample ID | Lab Sample ID | Client Sample ID | Matrix | Method | Prep Method |
|-------------------|-------------------|------------------------------|------------|---------------|-------------|
| ARS1-B23-01305-01 | | Lab Control Sample | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01305-02 | | Lab Control Sample Duplicate | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01305-03 | | Method Blank | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01305-04 | ARS1-23-01456-001 | FBC-062623 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01305-05 | ARS1-23-01456-002 | MSC01-062623 | Air Filter | Eichrom SRW01 | N/A |
| ARS1-B23-01305-06 | ARS1-23-01456-003 | MSC02-062623 | Air Filter | Eichrom SRW01 | N/A |



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Analytical Reports

for

GES-AIS, LLC

Batch QC



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------------|
| Analytical Batch | ARS1-B23-01204 |
| SDG | ARS1-23-01456 |
| 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 | 07/22/23 10:56 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|-------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01204-01 | LCS | AM-241 | 31.538 | 2.450 | 33.065 | 95.4 | 0.118 |
| ARS1-B23-01204-01 | LCS | CO-60 | 22.340 | 1.191 | 20.928 | 106.7 | 0.394 |
| ARS1-B23-01204-01 | LCS | CS-137 | 13.410 | 0.715 | 12.996 | 103.2 | 0.077 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/22/23 11:08 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| AM-241 | 31.538 | 2.450 | 31.721 | 2.464 | 0.103 | 0.6 | |
| CO-60 | 22.340 | 1.191 | 22.153 | 1.188 | 0.218 | 0.8 | |
| CS-137 | 13.410 | 0.715 | 13.658 | 0.727 | 0.477 | 1.8 | |

| Method Blank | | | Analysis Date | 07/18/23 14:08 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01204-03 | MBL | AC-228 | -0.005 | 0.007 | 0.006 | U | |
| ARS1-B23-01204-03 | MBL | AM-241 | 4.797E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | BI-212 | -0.004 | 0.013 | 0.014 | U | |
| ARS1-B23-01204-03 | MBL | BI-214 | -0.004 | 0.004 | 0.004 | U | |
| ARS1-B23-01204-03 | MBL | CO-60 | 9.623E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | CS-137 | -6.244E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | EU-152 | 4.350E-4 | 0.001 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | EU-154 | -1.638E-4 | 0.001 | 0.001 | U | |
| ARS1-B23-01204-03 | MBL | K-40 | -0.033 | 0.026 | 0.026 | U | |
| ARS1-B23-01204-03 | MBL | PA-234 | -7.642E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | PB-210 | 0.004 | 0.016 | 0.017 | U | |
| ARS1-B23-01204-03 | MBL | PB-212 | -8.511E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | PB-214 | -0.002 | 0.003 | 0.003 | U | |
| ARS1-B23-01204-03 | MBL | RA-226 | -0.023 | 0.025 | 0.026 | U | |
| ARS1-B23-01204-03 | MBL | RA-228 | -0.005 | 0.007 | 0.006 | U | |
| ARS1-B23-01204-03 | MBL | TH-234 | -0.002 | 0.016 | 0.020 | U | |
| ARS1-B23-01204-03 | MBL | TL-208 | -3.558E-4 | 0.002 | 0.002 | U | |
| ARS1-B23-01204-03 | MBL | U-235 | -0.002 | 0.006 | 0.008 | U | |
| ARS1-B23-01204-03 | MBL | U-238 | -0.002 | 0.016 | 0.020 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------|
| Analytical Batch | ARS1-B23-01285 |
| SDG | ARS1-23-01456 |
| 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 | 07/29/23 01:20 | Analysis Technician | | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01285-01 | LCS | TH-230 | 6.162E-6 | 7.730E-7 | 5.237E-6 | 117.6 | 3.830E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 07/29/23 01:20 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| TH-230 | 6.162E-6 | 7.730E-7 | 6.522E-6 | 8.198E-7 | 0.627 | 5.7 | |

| Method Blank | | | Analysis Date | 07/29/23 01:20 | Analysis Technician | | |
|--------------------------|---------|---------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01285-03 | MBL | TH-228 | 1.190E-8 | 7.188E-8 | 1.335E-7 | U | |
| ARS1-B23-01285-03 | MBL | TH-230 | 8.281E-8 | 1.231E-7 | 2.087E-7 | U | |
| ARS1-B23-01285-03 | MBL | TH-232 | -2.361E-8 | 8.186E-8 | 1.587E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|----------------------------------------------------------------------------|
| Analytical Batch | ARS1-B23-01299 |
| SDG | ARS1-23-01456 |
| 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 | 08/03/23 03:23 | Analysis Technician | | |
|---------------------------|---------|------------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01299-01 | LCS | PU-239/240 | 7.851E-6 | 9.823E-7 | 7.782E-6 | 100.9 | 5.086E-8 |

| Duplicate RER/DER/RPD | | | Analysis Date | 08/03/23 03:23 | Analysis Technician | | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----|--|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| PU-239/240 | 7.851E-6 | 9.823E-7 | 7.313E-6 | 9.189E-7 | 0.785 | 7.1 | |

| Method Blank | | | Analysis Date | 08/03/23 03:23 | Analysis Technician | | |
|--------------------------|---------|------------|---------------|----------------|---------------------|------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01299-03 | MBL | PU-238 | 0.000 | 9.669E-8 | 1.859E-7 | U | |
| ARS1-B23-01299-03 | MBL | PU-239/240 | -1.046E-7 | 1.141E-7 | 2.383E-7 | U | |



QC Results per Analytical Batch

| | |
|------------------|--------------------------------------------|
| Analytical Batch | ARS1-B23-01305 |
| SDG | ARS1-23-01456 |
| 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 | 08/02/23 10:23 | Analysis Technician | DWILLIAMS | |
|---------------------------|---------|---------|---------------|----------------|---------------------|-------------|----------|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | Expected Value | LCS Rec (%) | MDA |
| ARS1-B23-01305-01 | LCS | SR-90 | 2.232E-5 | 3.419E-6 | 1.966E-5 | 113.6 | 4.194E-7 |

| Duplicate RER/DER/RPD | | | Analysis Date | 08/02/23 10:23 | Analysis Technician | DWILLIAMS | |
|-----------------------|-------------|--------------|---------------|----------------|---------------------|-----------|-----|
| Analyte | Results LCS | CSU LCS (2s) | Results LCSD | CSU LCSD (2s) | DER | RPD | |
| SR-90 | | 2.232E-5 | 3.419E-6 | 2.257E-5 | 3.463E-6 | 0.097 | 1.1 |

| Method Blank | | | Analysis Date | 08/02/23 10:23 | Analysis Technician | DWILLIAMS | |
|--------------------------|---------|---------|---------------|----------------|---------------------|-----------|--|
| Analysis Batch Sample ID | QC Type | Analyte | Results | CSU (2s) | MDA | Qual | |
| ARS1-B23-01305-03 | MBL | SR-90 | 5.591E-7 | 2.700E-6 | 4.810E-6 | U | |



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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] 070523RADC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------|
| 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: | <div style="float: right; margin-right: 10px;"> <table border="1" style="margin-bottom: 5px;"> <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" style="margin-bottom: 5px;"> <tr><td>Code</td><td>Container/Preservative</td></tr> <tr><td>5</td><td>1x 1-L Plastic, HNO3, pH < 2</td></tr> <tr><td>15</td><td>1x 250-mL Plastic, 4 Degrees C</td></tr> </table> </div> | | | | | | | | | | 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 | | | | | 15 | 15 | 5 | | | | | | | | | | | | | | | |
| | Sample ID | Matrix | Date | Time | Samp Init. | | | | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | | | | | | | | |
| 1 | FBC-062623 | AQ | 06/26/2023 | 0800 | ML | X | X | X | [REDACTED] | FIELDQC | FB1 | 0.00 | | | 0.00 | 1 | | | | | | |
| 2 | MSC01-062623 | A | 06/29/2023 | 1236 | ML | X | X | X | [REDACTED] | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | | |
| 3 | MSC02-062623 | A | 06/29/2023 | 1231 | ML | X | X | X | [REDACTED] | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | |
| Turnaround Time: 28 days | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | | Date | Time | Received by: (Signature) | | Date | Time | Shipping Date / Carrier / Airbill Number | |
|------------------------------|--|--------|------|--------------------------|--|--------|------|-------------------------------------------------------------|--|
| [REDACTED] | | 7/5/23 | 1300 | Eodex | | 7/5/23 | 1300 | Shipping Date: 7/5/2023 / FEDEX / 7724 3186 8647 | |
| [REDACTED] | | | | [REDACTED] | | 7-6-23 | 1100 | Received by Laboratory: (Signature, Date, Time) & condition | |
| | | | | | | | | | |
| | | | | | | | | | |



Procedures: GES-003 / EPA 900.0M

Start Date 6/26/23
Stop Date 6/29/23

File ID Number: 70523RADC

Field Entry

| Station | Sample ID | Date In: | Time In: | Date Out: | Time Out: | Flow Rate (LPM) | Flow Rate (LPM) | Julian Date for Date Out | Total Run Time (Days) | Total 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/m) | Total Flow (L) | |
|---------|------------|--------------|----------|-----------|-----------|-----------------|-----------------|--------------------------|-----------------------|--------------------------|-------------------------|-------------------------|-----------------------|-------------------------|----------------------------|--------------------|----------------|---------|
| | | | | | |) |) | Cu.M | (Hours) | (Hours) | (LPM) | | | | n | | | |
| | FBC-062623 | 6/26/2023 | 800 | 6/26/2023 | 800 | | | | | | | | | | | | | |
| 1 | MSC01 | MSC01-062623 | 06/26/23 | 6:40 | 06/29/23 | 12:36 | 60 | 60 | 180 | 3.25 | 77.93 | 4676.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 280,560 |
| 2 | MSC02 | MSC02-062623 | 06/26/23 | 6:50 | 06/29/23 | 12:31 | 60 | 60 | 180 | 3.24 | 77.68 | 4661.0 | 60 | 2.11888 | 2.11888 | 3.6 | 0.06 | 279,660 |

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 | ARS1-23-01456 | | TAT Days | 28 Calendar Days | | Project Type | Environmental | |
| Sample Count | 3 | Rpt Level | 2a | Date Received | 07/06/2023 | | COC Number | 070523RADC |
| Client | GES-AIS, LLC | | Discrepancy Resol | N/A | | PO Number | Parcel C Air Monitoring RAD | |
| Client Code | 1138 | | Client Deadline | 08/03/2023 | | 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 | | | | | | | | | Comments |
|--------------------------------------------|--------------|------------|------------------|------------------|------------------|------|-------|---------|----------|
| FR | Name | Matrix | Start Date | End Date | Disp | Hold | Arch | Storage | Comments |
| 001 | FBC-062623 | Air Filter | 06/26/2023 07:59 | 06/26/2023 08:00 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442809 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/26/2023 07:59 | AF Volume (CuM): | | 0.001 | | |
| 002 | MSC01-062623 | Air Filter | 06/29/2023 12:35 | 06/29/2023 12:36 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442810 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/29/2023 12:35 | AF Volume (CuM): | | 0.001 | | |
| 003 | MSC02-062623 | Air Filter | 06/29/2023 12:30 | 06/29/2023 12:31 | H | 30 | 10 | PrePrep | |
| | IC_ID | Cnt | Container Type | AF Volume (L) | AF Units | | Rate | Mins | |
| | 442811 | 1 | HDP Container | 1 | LPM | | | 1 | |
| | | | Mid-Sample Date: | 06/29/2023 12:30 | AF Volume (CuM): | | 0.001 | | |

SDG Report - Analysis Assignments

| | | | |
|---------------|----------------------|-----------------------|-------------|
| SDG | ARS1-23-01456 | Sample Count | 3 |
| Client | GES-AIS, LLC | Analysis Count | 4-12 |

| 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: 2a

| 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 |
| WGAM | 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

ARS1-23-01456

| | | | | | | | | | | | |
|-------------|---------------------|-----|--------|-----------------------|------------------|-----------------|-------------------|--------------------|------------|------------|-------------------|
| 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 | | | | | | |
| | Analyte | | | RDL | LCS LL/UL | MS LL/UL | RadY LL/UL | GravY LL/UL | RER | RPD | Surr LL/UL |
| | 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 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-PU239-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Pu-239/240 | | |
| ASP-TH-AF | 001 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 002 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| ASP-TH-AF | 003 | uCi | filter | N/A | | 1 |
| | | Group | | Analyte | | |
| | | Parcel C Rad Sampling | | Th-232 | | |
| GAM-A-AF | 001 | uCi | filter | N/A | | 19 |
| | | 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 | | |

DQO Report for SDG

ARS1-23-01456

| 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

ARS1-23-01456

| | | | | | |
|-----------------------|-----|-----|--------|----------------|----|
| GAM-A-AF | 003 | uCi | filter | N/A | 19 |
| 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 | |
| GPC-SR90-AF | 001 | uCi | filter | N/A | 1 |
| Group | | | | Analyte | |
| Parcel C Rad Sampling | | | | Sr-90 | |
| GPC-SR90-AF | 002 | uCi | filter | N/A | 1 |
| Group | | | | Analyte | |
| Parcel C Rad Sampling | | | | Sr-90 | |
| GPC-SR90-AF | 003 | uCi | filter | N/A | 1 |
| Group | | | | Analyte | |
| Parcel C Rad Sampling | | | | Sr-90 | |

PALA Sample Receipt Inspection Form

Client Name: GES-AIS
 SDG: ARS1-23-01456

| | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|----------------------------------|-------------------------------------------|------------------------------------------------|-----------------------------------------------|----------------------------------------------|-----------------------------------------|
| Sample Custodian: | Survey Start Date: | Survey Start Time: | | | | | | |
| 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>273629</u> | Calibration Due Date: <u>9-13-23</u> | Background: | <u>4</u> $\mu\text{R}/\text{hr}$ | | | | | |
| Count Rate Meter + Probe Unit ID: <u>268993</u> | Calibration Due Date: <u>9-19-23</u> | Background: | <u>20</u> cpm | | | | | |
| Delivery Type (circle one): Direct Lock Box <u>Commercial Carriers</u> <u>FEDEX</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 ($\mu\text{R}/\text{hr}$) (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): | | | |
| A: <u>7724318686047</u> | <u>5</u> | <u>30</u> | <u>30</u> | <u>NA</u> | AQ | WD | WG | WO |
| B: | | | | | WS | WW | SI | UR |
| C: | | | | | SO | OL | BI | VG |
| D: | | | | | WP | SM | <u>AF</u> | |
| E: | | | | | | | | |
| F: | | | | | | | | |
| Visual Inspection: <u>External Shipping Container</u> | | (Circle response) | | <u>COC/Sample Inspection</u> | | (Circle response) | | |
| Good Condition with no Leaks or Tears | <input checked="" type="checkbox"/> Yes | No | | Sample Containers in good condition | <input checked="" type="checkbox"/> Yes | No | | |
| Marked Radioactive | Yes | <input checked="" type="checkbox"/> No | | No spills or leaks | <input checked="" type="checkbox"/> Yes | No | | |
| UN2910 | Yes | <input checked="" type="checkbox"/> No | | Marked Radioactive | <input checked="" type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | | |
| Security Seals | <input checked="" type="checkbox"/> Yes | No | | Durable labels w/indelible ink | <input checked="" type="checkbox"/> Yes | No | | |
| If yes, intact? | <input checked="" type="checkbox"/> Yes | No | N/A | COC relinquished/received correctly | <input checked="" type="checkbox"/> Yes | No | | |
| <u>Internal Shipping Container</u> | | | | Adequate volume/filled correctly | <input checked="" type="checkbox"/> Yes | No | | |
| COC's Present | <input checked="" type="checkbox"/> Yes | No | | Hold Time sufficient for analysis | <input checked="" type="checkbox"/> Yes | No | | |
| Well packaged container with no signs of leakage | <input checked="" type="checkbox"/> Yes | No | | For VOC/Radon, Head space? | <input checked="" type="checkbox"/> Yes | No | <input checked="" type="checkbox"/> N/A | |
| | | | | If yes, <6mm? | <input checked="" type="checkbox"/> Yes | No | <input checked="" type="checkbox"/> N/A | |
| | | | | # of containers received matches # on COC | <input checked="" type="checkbox"/> Yes | No | | |
| | | | | Samples received on ice? | <input checked="" type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | | |
| | | | | Type (circle one): | <input checked="" type="checkbox"/> Bagged Ice | <input checked="" type="checkbox"/> Loose Ice | <input checked="" type="checkbox"/> Blue Ice | <input checked="" type="checkbox"/> N/A |

PALA Sample Survey Form

Client Name: GES-AIS
SDG: ARS1-23-01456

Pipette ID: NA

Tip Lot#: NA

Disposable pipette lot#: NA

Sample Custodian:

Survey End Date: 7-6-23

Survey/pH End Time: 1200

pH re-check required? YES or NO

NOTE: Any metals sample acidified at sample receiving must be re-checked after - 24 hr.

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

Analyst: _____

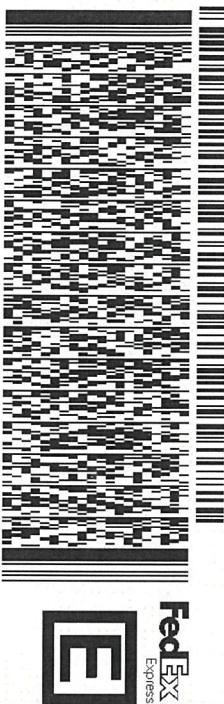
pH strip lot #:

Were all re-checked samples' pH \leq ?? 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).



XN OPLA

70767
LA-US
MSYTRK#
0201 7724 3186 8647WED - 21 JUN 4:30P
STANDARD OVERNIGHTPORT ALLEN LA 70767
(225) 381-2991
REF: J31000600 02/04/05
INV: PO
DEPT:TO [REDACTED]
ARS ALEUT ANALYTICAL, LLC
2609 NORTH RIVER ROAD

(925) 250-6097

200 FISHER STREET
SAN FRANCISCO, CA 94124
UNITED STATESSHIP DATE: 20JUN23
ACTWGT: 1.00 LB
CAD: 254128867/NET4610
BILL SENDER

503J2129AB/FE2D

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.

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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

July 13, 2023

[REDACTED]
AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY,
#550
TEMPE, AZ 85282

Laboratory Workorder ID: B187088

Client Project ID: J310000600

Received: July 6, 2023

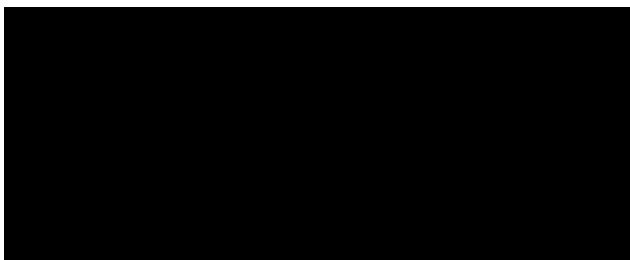
Reported: July 13, 2023

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.



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: 07/06/23

Attention:

PO Number J310000600

Client Project ID J310000600

| | | | | |
|--------------------|------------------------|---------|------------------------------|-----------------------------------|
| Lab ID: B187088001 | Sample ID: PM031623-18 | FIELDQC | Media: 8X10 PREWEIGHED GLASS | Sample Date: 6/26/2023 8:00:00 AM |
|--------------------|------------------------|---------|------------------------------|-----------------------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|--------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 0 L | 1000 ug | | | 1900 ug | -- |

| | | | | |
|--------------------|-------------------------|---------|------------------------------|-----------------------------------|
| Lab ID: B187088002 | Sample ID: TSP031623-19 | FIELDQC | Media: 8X10 PREWEIGHED GLASS | Sample Date: 6/26/2023 8:00:00 AM |
|--------------------|-------------------------|---------|------------------------------|-----------------------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|--------|-----------------|-------|------|---------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 0 L | 1000 ug | | | 1900 ug | -- |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 0 L | 14 ug | | | < 14 ug | -- |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 0 L | 98 ug | | | < 98 ug | -- |

| | | | | |
|--------------------|------------------------|-------|------------------------------|-----------------------------------|
| Lab ID: B187088003 | Sample ID: PM031623-20 | MSC01 | Media: 8X10 PREWEIGHED GLASS | Sample Date: 6/27/2023 7:02:00 AM |
|--------------------|------------------------|-------|------------------------------|-----------------------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1634930 L | 1000 ug | | | 14200 ug | 9 ug/M3 |

| | | | | |
|--------------------|-------------------------|-------|------------------------------|-----------------------------------|
| Lab ID: B187088004 | Sample ID: TSP031623-21 | MSC01 | Media: 8X10 PREWEIGHED GLASS | Sample Date: 6/27/2023 7:02:00 AM |
|--------------------|-------------------------|-------|------------------------------|-----------------------------------|

| 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: | B187088004 | Sample ID: | TSP031623-21 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/27/2023 7:02:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1638680 L | 1000 ug | | | 48300 ug | 29 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1638680 L | 14 ug | | | < 14 ug | < 0.009 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1638680 L | 98 ug | | | < 98 ug | < 0.06 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088005 | Sample ID: | PM031623-22 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/27/2023 6:49:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1611620 L | 1000 ug | | | 18200 ug | 11 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088006 | Sample ID: | TSP031623-23 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/27/2023 6:49:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1709230 L | 1000 ug | | | 40900 ug | 24 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1709230 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1709230 L | 98 ug | | | < 98 ug | < 0.057 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088007 | Sample ID: | PM031623-24 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/28/2023 7:01:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1656320 L | 1000 ug | | | 10800 ug | 7 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: | B187088008 | Sample ID: | TSP031623-25 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/28/2023 7:01:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1650360 L | 1000 ug | | | 39700 ug | 24 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1650360 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1650360 L | 98 ug | | | < 98 ug | < 0.059 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088009 | Sample ID: | PM031623-26 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/28/2023 6:48:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1633470 L | 1000 ug | | | 14100 ug | 9 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088010 | Sample ID: | TSP031623-27 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/28/2023 6:48:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1726320 L | 1000 ug | | | 29200 ug | 17 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1726320 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1726320 L | 98 ug | | | < 98 ug | < 0.057 ug/M3 |

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|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088011 | Sample ID: | PM031623-28 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 6:57:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1655660 L | 1000 ug | | | 9400 ug | 6 ug/M3 |



**Built Environment Testing
Analytics**

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Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA LAP, LLC Accreditation ID 100531

Final Report

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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088012 | Sample ID: | TSP031623-29 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 6:57:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1644560 L | 1000 ug | | | 37500 ug | 23 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1644560 L | 14 ug | | | < 14 ug | < 0.009 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1644560 L | 98 ug | | | < 98 ug | < 0.06 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088013 | Sample ID: | PM031623-30 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 7:09:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 1658400 L | 1000 ug | | | 12800 ug | 8 ug/M3 |

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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|
| Lab ID: | B187088014 | Sample ID: | TSP031623-31 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 7:09:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 1762760 L | 1000 ug | | | 28400 ug | 16 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 1762760 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 1762760 L | 98 ug | | | < 98 ug | < 0.056 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|-----------------------|
| Lab ID: | B187088015 | Sample ID: | PM031623-32 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 12:40:00 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|-----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 390120 L | 1000 ug | | | 4900 ug | 13 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: | B187088016 | Sample ID: | TSP031623-33 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 12:40:00 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|-----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 388840 L | 1000 ug | | | 10000 ug | 26 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 388840 L | 14 ug | | | < 14 ug | < 0.036 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 388840 L | 98 ug | | | < 98 ug | < 0.252 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|-----------------------|
| Lab ID: | B187088017 | Sample ID: | PM031623-34 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 12:35:00 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|-----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/07/23 | 365020 L | 1000 ug | | | 4600 ug | 13 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|-----------------------|
| Lab ID: | B187088018 | Sample ID: | TSP031623-35 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 6/29/2023 12:35:00 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|-----------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|---------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/07/23 | 385720 L | 1000 ug | | | 8500 ug | 22 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/12/23 | 385720 L | 14 ug | | | < 14 ug | < 0.036 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/12/23 | 385720 L | 98 ug | | | < 98 ug | < 0.254 ug/M3 |



Built Environment Testing
Analytics

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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



B187088

CHAIN-OF-CUSTODY RECORD

Gilbane Federal

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

COC # 070523AIRC



| | | |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------|
| 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 | | |
| 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] | 7/5/23 | 1300 | FedEx | 7/5/23 | 1300 | Shipping Date: 7/5/2023 / FEDEX / 7724 3152 3920 |
| [REDACTED] | | | [REDACTED] | 10/23 | 1302 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | [REDACTED] | | | [REDACTED] 173 02 CUSTODY seal intact |
| | | | [REDACTED] | | | |

CHAIN-OF-CUSTODY RECORD

Gilbane Federal

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

COC # 070523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| 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 colspan="2"> </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 | Page 2 of 4 | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sample ID | Matrix | Date | Time | Samp Init. | | | | | | | | | | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | | | | | | | | |
| 1 | PM031623-24 | A | 06/28/2023 | 0701 | | X | | | | | | | | | MSC01 | N1 | 0.00 | 0.00 | | | 1 | | | | | | | |
| 2 | TSP031623-25 | A | 06/28/2023 | 0701 | | | X | X | | | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | |
| 3 | PM031623-26 | A | 06/28/2023 | 0648 | | X | | | | | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | | | |
| 4 | TSP031623-27 | A | 06/28/2023 | 0648 | | | 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] | 7/5/23 | 1300 | Fedex | 7/5/23 | 1300 | Shipping Date: 7/5/2023 / FEDEX / 7724 3152 3920 |
| [REDACTED] | | | [REDACTED] | 7/6/23 | 1302 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | [REDACTED] | | | Custody seal intact y |
| | | | [REDACTED] | | | |

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal

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

COC # [REDACTED] 070523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--------------------------------|------------|------|------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|-------------|----------------|--------|----------|------|------------------------|---|--------------------------------|---|-------------------|-------------|
| Comments: | | | | | Analytical Test Method | <table border="1"> <tr> <td>Code</td> <td>Matrix</td> </tr> <tr> <td>A</td> <td>Air</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 | Code | Container/Preservative | 1 | 1x 250-mL Plastic, 4 Degrees C | 1 | 1x Envelope, None | Page 3 of 4 |
| Code | Matrix | | | | | | | | | | | | | | | | | | |
| A | Air | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | |
| Equipment: | | | | | 1 | 1 | 1 | | | | | | | | | | | | |
| 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 PM031623-28 | A | 06/29/2023 | 0657 | [REDACTED] | X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | |
| 2 TSP031623-29 | A | 06/29/2023 | 0657 | [REDACTED] | | X | X | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | | |
| 3 PM031623-30 | A | 06/29/2023 | 0709 | [REDACTED] | X | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | | |
| 4 TSP031623-31 | A | 06/29/2023 | 0709 | [REDACTED] | | 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] | 7/5/23 | 1300 | Fedex | 7/5/23 | 1300 | Shipping Date: 7/5/2023 / FEDEX / 7724 3152 3920 |
| | | | [REDACTED] | 7/6/23 | 1302 | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | [REDACTED] | | | [REDACTED] |
| | | | | | | |

**CHAIN-OF-CUSTODY
RECORD**

CibaGeigy Federal

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

COC # [REDACTED] 070523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | [REDACTED] | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| Comments: | | | | | Analytical Test Method | <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 | Page 4 of 4 |
|--------------------------------|--------------------------------|------------|------|------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------|----------------|--------------|--------|------------------------|---|--------------------------------|---|-------------------|-------------|
| 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) | Top - Bottom | Cooler | Comments | | | | | |
| 1 PM031623-32 | A | 06/29/2023 | 1240 | [REDACTED] | X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | |
| 2 TSP031623-33 | A | 06/29/2023 | 1240 | [REDACTED] | X X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | | | | | | |
| 3 PM031623-34 | A | 06/29/2023 | 1235 | [REDACTED] | X | | | MSC02 | N1 | 0.00 | 0.00 | 1 | | | | | | |
| 4 TSP031623-35 | A | 06/29/2023 | 1235 | [REDACTED] | 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] | 7/5/23 | 1300 | Fedex, | 7/5/23 | 1300 | Shipping Date: / FEDEX / 7724 3152 3920 |
| [REDACTED] | | | [REDACTED] | 7/6/23 | 1300 | 7/5/23 |
| | | | | | | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | Custody Seal Intact [REDACTED] |

COC # [REDACTED] 070523AIRC



| Project Name: Hunters Point Shipyard, Parcel C Removal Site | | | | | | |
|-------------------------------------------------------------|--------------|--------|-----------|------|----------------------|--|
| Project Number: J310000600 | | | | | | |
| WBS Code: J310000600 | | | | | | |
| Event: Parcel C Air Monitoring | | | | | | |
| | Sample ID | Matrix | Date | Time | Comments | |
| 1 | PM031623-18 | AQ | 6/26/2023 | 0800 | VOLUME (M3): | |
| 2 | TSP031623-19 | AQ | 6/26/2023 | 0800 | VOLUME (M3): | |
| 3 | PM031623-20 | A | 6/27/2023 | 0702 | VOLUME (M3): 1634.93 | |
| 4 | TSP031623-21 | A | 6/27/2023 | 0702 | VOLUME (M3): 1638.68 | |
| 5 | PM031623-22 | A | 6/27/2023 | 0649 | VOLUME (M3): 1611.62 | |
| 6 | TSP031623-23 | A | 6/27/2023 | 0649 | VOLUME (M3): 1709.23 | |
| 7 | PM031623-24 | A | 6/28/2023 | 0701 | VOLUME (M3): 1656.32 | |
| 8 | TSP031623-25 | A | 6/28/2023 | 0701 | VOLUME (M3): 1650.36 | |
| 9 | PM031623-26 | A | 6/28/2023 | 0648 | VOLUME (M3): 1633.47 | |
| 10 | TSP031623-27 | A | 6/28/2023 | 0648 | VOLUME (M3): 1726.32 | |
| 11 | PM031623-28 | A | 6/29/2023 | 0657 | VOLUME (M3): 1655.66 | |
| 12 | TSP031623-29 | A | 6/29/2023 | 0657 | VOLUME (M3): 1644.56 | |
| 13 | PM031623-30 | A | 6/29/2023 | 0709 | VOLUME (M3): 1658.40 | |
| 14 | TSP031623-31 | A | 6/29/2023 | 0709 | VOLUME (M3): 1762.76 | |
| 15 | PM031623-32 | A | 6/29/2023 | 1240 | VOLUME (M3): 390.12 | |
| 16 | TSP031623-33 | A | 6/29/2023 | 1240 | VOLUME (M3): 388.84 | |
| 17 | PM031623-34 | A | 6/29/2023 | 1235 | VOLUME (M3): 365.02 | |
| 18 | TSP031623-35 | A | 6/29/2023 | 1235 | VOLUME (M3): 385.72 | |



Built Environment Testing
Analytics

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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 #: B187088

Report Date: 7/13/2023

Batch ID: ICP230705B **Analysis Date:** 7/12/2023

Media:: 8X10PW GFF **Preparation Date** 7/5/2023

Blank Spike Results

Percent Recovery

| QC ID | QC Type | Parameter | LCS | LCSD | Acceptance | RPD | Limit |
|-----------|---------|-----------|-----|------|------------|-----|-------|
| LCS ICP23 | BLKSPK | Lead | 109 | 106 | 75-125 | 1.0 | 25 |
| LCS ICP23 | BLKSPK | Manganese | 96 | 96 | 75-125 | 0.0 | 25 |

Method Blank Results

| QC ID | QC Type | Parameter | Result | RL | Units |
|----------|---------|-----------|--------|----|-------|
| LMB ICP2 | LMB | Lead | < 14 | 14 | ug |
| LMB ICP2 | LMB | Manganese | < 98 | 98 | ug |



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

July 19, 2023

[REDACTED]
AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY,
#550
TEMPE, AZ 85282

Laboratory Workorder ID: B193056

Client Project ID: J310000600 PARCEL C HUNTERS PT

Received: July 12, 2023

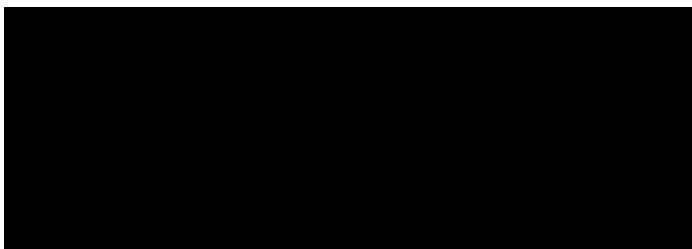
Reported: July 19, 2023

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.



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: 07/12/23

PO Number J310000600

Client Project ID J310000600 PARCEL C
HUNTERS PT

| | | | | | | | | | |
|---------|------------|------------|-------------|---------|---------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056001 | Sample ID: | PM031623-40 | Method: | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/5/2023 8:00:00 AM |
|---------|------------|------------|-------------|---------|---------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|--------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/13/23 | 0 L | 1000 ug | | | 2700 ug | -- |

| | | | | | | | | | |
|---------|------------|------------|--------------|---------|---------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056002 | Sample ID: | TSP032023-01 | Method: | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/5/2023 8:00:00 AM |
|---------|------------|------------|--------------|---------|---------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|--------|-----------------|-------|------|---------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/13/23 | 0 L | 1000 ug | | | 3100 ug | -- |
| Lead | 40 CFR Part 50 Appendix G | 07/18/23 | 0 L | 14 ug | | | < 14 ug | -- |
| Manganese | 40 CFR Part 50 Appendix G | 07/18/23 | 0 L | 98 ug | | | < 98 ug | -- |

| | | | | | | | | | |
|---------|------------|------------|-------------|---------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056003 | Sample ID: | PM032023-06 | Method: | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 6:47:00 AM |
|---------|------------|------------|-------------|---------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/13/23 | 1651410 L | 1000 ug | | | 15400 ug | 9 ug/M3 |



**Built Environment Testing
Analytics**

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AIHA LAP, LLC Accreditation ID 100531

Final Report

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056004 | Sample ID: | TSP032023-07 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 6:47:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/13/23 | 1657740 L | 1000 ug | | | 45600 ug | 28 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/18/23 | 1657740 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/18/23 | 1657740 L | 98 ug | | | < 98 ug | < 0.059 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056005 | Sample ID: | PM032023-08 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 7:00:00 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/13/23 | 1620080 L | 1000 ug | | | 21200 ug | 13 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056006 | Sample ID: | TSP032023-09 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 7:00:00 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/13/23 | 1726900 L | 1000 ug | | | 47000 ug | 27 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/18/23 | 1726900 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/18/23 | 1726900 L | 98 ug | | | < 98 ug | < 0.057 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056007 | Sample ID: | PM032023-10 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 3:19:00 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/13/23 | 585420 L | 1000 ug | | | 6800 ug | 12 ug/M3 |



Built Environment Testing Analytics

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Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA LAP, LLC Accreditation ID 100531

Final Report

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056008 | Sample ID: | TSP032023-11 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 3:19:00 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/13/23 | 589470 L | 1000 ug | | | 18600 ug | 32 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/18/23 | 589470 L | 14 ug | | | < 14 ug | < 0.024 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/18/23 | 589470 L | 98 ug | | | < 98 ug | < 0.166 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056009 | Sample ID: | PM032023-12 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 3:07:00 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|-----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/13/23 | 550180 L | 1000 ug | | | 174000 ug | 316 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|
| Lab ID: | B193056010 | Sample ID: | TSP032023-13 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 7/6/2023 3:07:00 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|---------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/13/23 | 590350 L | 1000 ug | | | 20300 ug | 34 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/18/23 | 590350 L | 14 ug | | | < 14 ug | < 0.024 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/18/23 | 590350 L | 98 ug | | | < 98 ug | < 0.166 ug/M3 |



Built Environment Testing
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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] 071123AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--------|--------------------------------|------|------------|------------------------|---|---|---|--|--|--|--|---------|-------------|-------------|----------------|--------|--------------|--------------|
| Comments: | Code | Matrix | | | | | | | | | | | | | | | | | |
| | A | Air | | | | | | | | | | | | | | | | | |
| | AQ | Air Quality Control Matrix | | | | | | | | | | | | | | | | | |
| Equipment: | Code | Container/Preservative | | | | | | | | | | | | | | | | | |
| | 1 | 1x 250-mL Plastic, 4 Degrees C | | | | | | | | | | | | | | | | | |
| | 1 | 1x Envelope, None | | | | | | | | | | | | | | | | | |
| Event: Parcel C Air Monitoring | | | | | | | | | | | | | | | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | Analytical Test Method | 1 | 1 | 1 | | | | | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | |
| 1 PM031623-40 | AQ | 07/05/2023 | 0800 | [REDACTED] | CAAIR - Air PM10 | X | | | | | | | | FIELDQC | AB1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 2 TSP032023-01 | AQ | 07/05/2023 | 0800 | [REDACTED] | ND500 - Air TSP | X | X | | | | | | FIELDQC | AB2 | 0.00 | 0.00 | 1 | VOLUME (M3): | |
| 3 PM032023-06 | A | 07/06/2023 | 0647 | [REDACTED] | SW6010B - Air Pb Mn | X | | | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | |
| 4 TSP032023-07 | A | 07/06/2023 | 0647 | [REDACTED] | | X | X | | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | |
| 5 PM032023-08 | A | 07/06/2023 | 0700 | [REDACTED] | | X | | | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | |
| 6 TSP032023-09 | A | 07/06/2023 | 0700 | [REDACTED] | | | X | X | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | |
| Turnaround Time: NA | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|------------------------------|---------|------|--------------------------|---------|------|-------------------------------------------------------------|
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Shipping Date / Carrier / Airbill Number |
| [REDACTED] | 7/11/23 | 1300 | [REDACTED] | 7/11/23 | 1300 | Shipping Date: 7/11/2023 / FEDEX / 7725 8526 5883 |
| | | | | | | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | 7/11/23 1215 |
| | | | | | | [REDACTED] |
| | | | | | | [REDACTED] |
| | | | | | | 12123 CUSTODY 1215 seal intact until |

CHAIN-OF-CUSTODY RECORD

Gilbane Federal

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

COC # 071123AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| Comments: | | | | | | | | | | | | |
|--------------------------------|--------------|--------------|----------------|------|------------|------------------------|------------------|-----------------|---------------------|--|--|--|
| A | Air | | | | | | | | | | | |
| Equipment: | | | | | | | | | | | | |
| Event: Parcel C Air Monitoring | Sample ID | Matrix | Date | Time | Samp Init. | Analytical Test Method | CAAIR - Air PM10 | N0500 - Air TSP | SW6010B - Air Pb Mn | | | |
| 1 | PM032023-10 | A | 07/06/2023 | 1519 | | X | | | | | | |
| 2 | TSP032023-11 | A | 07/06/2023 | 1519 | | | X | X | | | | |
| 3 | PM032023-12 | A | 07/06/2023 | 1507 | | X | | | | | | |
| 4 | TSP032023-13 | A | 07/06/2023 | 1507 | | | X | X | | | | |
| Turnaround Time: 5 days | Location ID | Sample Type | Depth (ft bgs) | | Cooler | Comments | | | | | | |
| | | Top - Bottom | | | | | | | | | | |

CHAIN-OF-CUSTODY RECORD

COC # [REDACTED] 071123AIRC



| | Sample ID | Matrix | Date | Time | Comments |
|----|--------------|--------|------------|------|----------------------|
| 1 | PM031623-40 | AQ | 07/05/2023 | 0800 | VOLUME (M3): |
| 2 | TSP032023-01 | AQ | 07/05/2023 | 0800 | VOLUME (M3): |
| 3 | PM032023-06 | A | 07/06/2023 | 0647 | VOLUME (M3): 1651.41 |
| 4 | TSP032023-07 | A | 07/06/2023 | 0647 | VOLUME (M3): 1657.74 |
| 5 | PM032023-08 | A | 07/06/2023 | 0700 | VOLUME (M3): 1620.08 |
| 6 | TSP032023-09 | A | 07/06/2023 | 0700 | VOLUME (M3): 1726.90 |
| 7 | PM032023-10 | A | 07/06/2023 | 1519 | VOLUME (M3): 585.42 |
| 8 | TSP032023-11 | A | 07/06/2023 | 1519 | VOLUME (M3): 589.47 |
| 9 | PM032023-12 | A | 07/06/2023 | 1507 | VOLUME (M3): 550.18 |
| 10 | TSP032023-13 | A | 07/06/2023 | 1507 | VOLUME (M3): 590.35 |



Built Environment Testing
Analytics

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Ashland, Va 23005
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AIHA-LAP, LLC Accreditation ID 100531

Level 2 QA/QC Summary Report

Work Order #: B193056

Report Date: 7/19/2023

Batch ID: ICP230713B **Analysis Date:** 7/18/2023

Media:: 8X10PW GFF **Preparation Date** 7/13/2023

Blank Spike Results

| QC ID | QC Type | Parameter | Percent Recovery | | | | |
|-----------|---------|-----------|------------------|------|------------|-----|-------|
| | | | LCS | LCSD | Acceptance | RPD | Limit |
| LCS ICP23 | BLKSPK | Lead | 117 | 121 | 75-125 | 4.0 | 20 |
| LCS ICP23 | BLKSPK | Manganese | 92 | 96 | 75-125 | 4.0 | 20 |

Method Blank Results

| QC ID | QC Type | Parameter | Result | RL | Units |
|----------|---------|-----------|--------|----|-------|
| LMB ICP2 | LMB | Lead | < 14 | 14 | ug |
| LMB ICP2 | LMB | Manganese | < 98 | 98 | ug |



Built Environment Testing
Analytics

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Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA LAP, LLC Accreditation ID 100531

August 2, 2023

[REDACTED]
AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY,
#550
TEMPE, AZ 85282

Laboratory Workorder ID: B200051

Client Project ID: J310000600 PARCEL C HUNTERS PT

Received: July 19, 2023

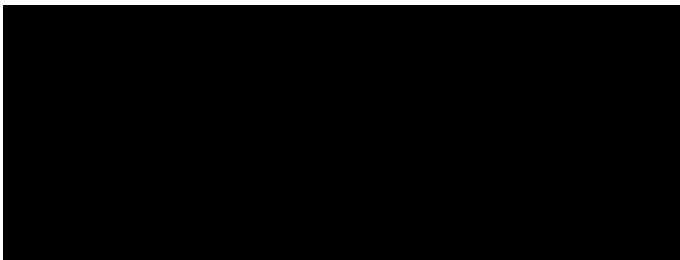
Reported: July 25, 2023

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.



Technical Director

Enclosures



Built Environment Testing Analytics

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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: 07/19/23

PO Number J310000600

Client Project ID J310000600 PARCEL C
HUNTERS PT

| | | | | | | | | |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051001 | Sample ID: | PM032023-30 | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/10/2023 8:00 AM |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|--------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 0 L | 1000 ug | | | 3200 ug | -- |

| | | | | | | | | |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051002 | Sample ID: | PM041823-51 | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/10/2023 8:00 AM |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|--------|-----------------|-------|------|---------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 0 L | 1000 ug | | | 1200 ug | -- |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 0 L | 14 ug | | | 22.8 ug | -- |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 0 L | 98 ug | | | < 98 ug | -- |

Lead present in client blank. Samples are not corrected.

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051003 | Sample ID: | PM041823-52 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/11/2023 6:45 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1611210 L | 1000 ug | | | 10400 ug | 6 ug/M3 |



**Built Environment Testing
Analytics**

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AIHA LAP, LLC Accreditation ID 100531

Final Report

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051004 | Sample ID: | TSP041823-53 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/11/2023 6:45 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1618350 L | 1000 ug | | | 29900 ug | 18 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1618350 L | 14 ug | | | < 14 ug | < 0.009 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1618350 L | 98 ug | | | < 98 ug | < 0.061 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051005 | Sample ID: | PM041823-54 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/11/2023 6:56 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1628740 L | 1000 ug | | | 16200 ug | 10 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051006 | Sample ID: | TSP041823-55 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/11/2023 6:56 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1731270 L | 1000 ug | | | 49400 ug | 29 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1731270 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1731270 L | 98 ug | | | < 98 ug | < 0.057 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051007 | Sample ID: | PM041823-56 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/12/2023 6:40 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1667360 L | 1000 ug | | | 13000 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: | B200051008 | Sample ID: | TSP041823-57 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/12/2023 6:40 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1662530 L | 1000 ug | | | 30400 ug | 18 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1662530 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1662530 L | 98 ug | | | < 98 ug | < 0.059 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051009 | Sample ID: | PM041823-58 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/12/2023 6:53 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1645390 L | 1000 ug | | | 16500 ug | 10 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051010 | Sample ID: | TSP041823-59 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/12/2023 6:53 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1745640 L | 1000 ug | | | 37800 ug | 22 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1745640 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1745640 L | 98 ug | | | < 98 ug | < 0.056 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051011 | Sample ID: | PM041823-60 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 6:56 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1683010 L | 1000 ug | | | 10000 ug | 6 ug/M3 |



**Built Environment Testing
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Ashland, Va 23005
Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA LAP, LLC Accreditation ID 100531

Final Report

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051012 | Sample ID: | TSP041823-61 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 6:56 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1681660 L | 1000 ug | | | 37100 ug | 22 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1681660 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1681660 L | 98 ug | | | < 98 ug | < 0.058 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051013 | Sample ID: | PM041823-62 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 7:06 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 1666730 L | 1000 ug | | | 14200 ug | 9 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051014 | Sample ID: | TSP041823-63 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 7:06 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 1765350 L | 1000 ug | | | 41800 ug | 24 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 1765350 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 1765350 L | 98 ug | | | < 98 ug | < 0.056 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051015 | Sample ID: | PM041823-64 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 2:58 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 559460 L | 1000 ug | | | 2500 ug | 4 ug/M3 |



Built Environment Testing Analytics

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Phone: (804) 365-3000 Fax: (804) 365-3002
AIHA LAP, LLC Accreditation ID 100531

Final Report

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051016 | Sample ID: | TSP041823-65 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 2:58 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 556360 L | 1000 ug | | | 11900 ug | 21 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 556360 L | 14 ug | | | < 14 ug | < 0.025 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 556360 L | 98 ug | | | < 98 ug | < 0.176 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051017 | Sample ID: | PM041823-66 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 2:59 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/20/23 | 541460 L | 1000 ug | | | 4800 ug | 9 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B200051018 | Sample ID: | TSP041823-67 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/13/2023 2:59 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|---------------------------|---------------|----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/20/23 | 572300 L | 1000 ug | | | 12500 ug | 22 ug/M3 |
| Lead | 40 CFR Part 50 Appendix G | 07/25/23 | 572300 L | 14 ug | | | < 14 ug | < 0.024 ug/M3 |
| Manganese | 40 CFR Part 50 Appendix G | 07/25/23 | 572300 L | 98 ug | | | < 98 ug | < 0.171 ug/M3 |



Built Environment Testing
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Ashland, Va 23005

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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] 071823AIRC



B200051

| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| | | | | | | | | | | | | |
|--------------------------------|--------|------------|------|------------|--|------------------------|--------------------------------|-------------|----------------|--------------|--------|--------------|
| Comments: | | | | | | Analytical Test Method | Code | Matrix | P18/23 | | | |
| | | | | | | | | | | 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 | | | | | | 1 | 1 | 1 | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | | | Location ID | Sample Type | Depth (ft bgs) | Top - Bottom | Cooler | Comments |
| 1 PM032023-30 | AQ | 07/10/2023 | 0800 | X | | | FIELDQC | FB1 | 0.00 | 0.00 | 1 | |
| 2 TSP041823-51 | AQ | 07/10/2023 | 0800 | X X | | | FIELDQC | FB1 | 0.00 | 0.00 | 1 | |
| 3 PM041823-52 | A | 07/11/2023 | 0645 | X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 4 TSP041823-53 | A | 07/11/2023 | 0645 | X X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 5 PM041823-54 | A | 07/11/2023 | 0656 | X | | | MSC02 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 6 TSP041823-55 | A | 07/11/2023 | 0656 | 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] | 7/18/23 | 1200 | Fedex | 7/18/23 | 1200 | Shipping Date: 7/18/2023 / FEDEX / 7726 2736 9274 |
| | | | | | | Received by Laboratory (Signature, Date, Time) & condition |
| | | | | | | 7/19/23 1337 CUSTODY [REDACTED] 337 SEAL INTEGRITY |

CHAIN-OF-CUSTODY RECORD

Gilbane Federal

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

COC # 071823AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| 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] | 7/18/23 | 1200 | Fedex | 7/18/23 | 1200 | Shipping Date: 7/18/2023 / FEDEX / 7726 2736 9274 |
| [REDACTED] | | | [REDACTED] | 119/23 | 1337 | Received by: (Signature, Date, Time) & condition |
| [REDACTED] | | | [REDACTED] | [REDACTED] | [REDACTED] | Custody Seal Intact |
| [REDACTED] | | | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |

CHAIN-OF-CUSTODY RECORD

Gilbane Federal

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

COC # 071823AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| Comments: | | | | | | | | 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 | | | | | | | | | | | | | | | | | | |
| | Sample ID | Matrix | Date | Time | Samp Init. | | | | | | | | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments | |
| 1 | PM041823-60 | A | 07/13/2023 | 0656 | X | | | | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 2 | TSP041823-61 | A | 07/13/2023 | 0656 | | X | X | | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 3 | PM041823-62 | A | 07/13/2023 | 0706 | X | | | | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): |
| 4 | TSP041823-63 | A | 07/13/2023 | 0706 | | 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] | 7/18/23 | 1200 | FedEx | 7/18/23 | 1200 | Shipping Date: 7/18/2023 / FEDEX / 7726 2736 9274 |
| [REDACTED] | | | [REDACTED] | 7/19/23 | 1337 | Received by Laboratory: (Signature, Date, Time) & condition |
| [REDACTED] | | | [REDACTED] | | | [REDACTED] |
| [REDACTED] | | | [REDACTED] | | | Lvs today seal intact yd |

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal

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

COC # [REDACTED] 071823AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| 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> </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 | 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) | Top - Bottom | Cooler | Comments | | | |
| 1 PM041823-64 | A | 07/13/2023 | 1458 | [REDACTED] | X | | / | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | | | |
| 2 TSP041823-65 | A | 07/13/2023 | 1458 | [REDACTED] | | X | X | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | | | |
| 3 PM041823-66 | A | 07/13/2023 | 1459 | [REDACTED] | X | | | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | VOLUME (M3): | | | |
| 4 TSP041823-67 | A | 07/13/2023 | 1459 | [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] | 7/18/23 | 1200 | Fedex | 7/18/23 | 1200 | Shipping Date: 7/18/2023 / FEDEX / 7726 2736 9274 |
| | | | | | | Received by Laboratory: (Signature, Date, Time) & condition |
| | | | | | | 7/18/23 1337 [REDACTED] Custody seal intact |
| | | | | | | |

COC

071823AIRC



| Project Name: Hunters Point Shipyard, Parcel C Removal Site | | | | | | |
|-------------------------------------------------------------|--------------|--------|------------|------|----------------------|--|
| Project Number: J310000600 | | | | | | |
| WBS Code: J310000600 | | | | | | |
| Event: Parcel C Air Monitoring | | | | | | |
| | Sample ID | Matrix | Date | Time | Comments | |
| 1 | PM032023-30 | AQ | 07/10/2023 | 0800 | | |
| 2 | TSP041823-51 | AQ | 07/10/2023 | 0800 | | |
| 3 | PM041823-52 | A | 07/11/2023 | 0645 | VOLUME (M3): 1611.21 | |
| 4 | TSP041823-53 | A | 07/11/2023 | 0645 | VOLUME (M3): 1618.35 | |
| 5 | PM041823-54 | A | 07/11/2023 | 0656 | VOLUME (M3): 1628.74 | |
| 6 | TSP041823-55 | A | 07/11/2023 | 0656 | VOLUME (M3): 1731.27 | |
| 7 | PM041823-56 | A | 07/12/2023 | 0640 | VOLUME (M3): 1667.36 | |
| 8 | TSP041823-57 | A | 07/12/2023 | 0640 | VOLUME (M3): 1662.53 | |
| 9 | PM041823-58 | A | 07/12/2023 | 0653 | VOLUME (M3): 1645.39 | |
| 10 | TSP041823-59 | A | 07/12/2023 | 0653 | VOLUME (M3): 1745.64 | |
| 11 | PM041823-60 | A | 07/13/2023 | 0656 | VOLUME (M3): 1683.01 | |
| 12 | TSP041823-61 | A | 07/13/2023 | 0656 | VOLUME (M3): 1681.66 | |
| 13 | PM041823-62 | A | 07/13/2023 | 0706 | VOLUME (M3): 1666.73 | |
| 14 | TSP041823-63 | A | 07/13/2023 | 0706 | VOLUME (M3): 1765.35 | |
| 15 | PM041823-64 | A | 07/13/2023 | 1458 | VOLUME (M3): 559.46 | |
| 16 | TSP041823-65 | A | 07/13/2023 | 1458 | VOLUME (M3): 556.36 | |
| 17 | PM041823-66 | A | 07/13/2023 | 1459 | VOLUME (M3): 541.46 | |
| 18 | TSP041823-67 | A | 07/13/2023 | 1459 | VOLUME (M3): 572.30 | |



Built Environment Testing
Analytics

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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 #: B200051

Report Date: 8/2/2023

Batch ID: ICP230720B **Analysis Date:** 7/25/2023
Media:: 8X10PW GFF **Preparation Date** 7/20/2023

Blank Spike Results

| QC ID | QC Type | Parameter | Percent Recovery | | | | |
|-----------|---------|-----------|------------------|------|------------|-----|-------|
| | | | LCS | LCSD | Acceptance | RPD | Limit |
| LCS ICP23 | BLKSPK | Lead | 121 | 125 | 75-125 | 3.3 | 20 |
| LCS ICP23 | BLKSPK | Manganese | 103 | 95 | 75-125 | 8.5 | 20 |

Method Blank Results

| QC ID | QC Type | Parameter | Result | RL | Units |
|----------|---------|-----------|--------|----|-------|
| LMB ICP2 | LMB | Lead | < 14 | 14 | ug |
| LMB ICP2 | LMB | Manganese | < 98 | 98 | ug |



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

August 4, 2023

[REDACTED]
AIS-GES, LLC
1501 W. FOUNTAINHEAD PKWY,
#550
TEMPE, AZ 85282

Laboratory Workorder ID: B207017

Client Project ID: J310000600 PARCEL C HUNTERS PT

Received: July 26, 2023

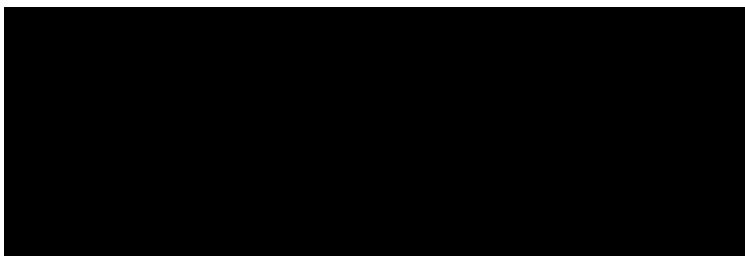
Reported: August 4, 2023

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.



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: 07/26/23

Attention: [REDACTED]

PO Number J310000600

Client Project ID J310000600 PARCEL C
HUNTERS PT

| | | | | | | | | |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017001 | Sample ID: | PM021223-01 | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/17/2023 8:00 AM |
|---------|------------|------------|-------------|---------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|--------|-----------------|-------|------|-----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 0 L | 1000 ug | | | < 1000 ug | -- |

| | | | | | | | | |
|---------|------------|------------|--------------|---------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017002 | Sample ID: | TSP021423-12 | FIELDQC | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/17/2023 8:00 AM |
|---------|------------|------------|--------------|---------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|--------|-----------------|-------|------|---------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 0 L | 1000 ug | | | 1300 ug | -- |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 0 L | 14 ug | | | < 14 ug | -- |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 0 L | 98 ug | | | < 98 ug | -- |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017003 | Sample ID: | PM042123-48 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/18/2023 6:43 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1669180 L | 1000 ug | | | 40300 ug | 24 ug/M3 |



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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017004 | Sample ID: | TSP042123-49 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/18/2023 6:43 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1659450 L | 1000 ug | | | 77600 ug | 47 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1659450 L | 14 ug | | | < 14 ug | < 0.0084 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1659450 L | 98 ug | | | < 98 ug | < 0.0591 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017005 | Sample ID: | PM042123-50 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/18/2023 6:55 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1636630 L | 1000 ug | | | 45400 ug | 28 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017006 | Sample ID: | TSP042123-51 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/18/2023 6:55 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1740440 L | 1000 ug | | | 74900 ug | 43 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1740440 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1740440 L | 98 ug | | | < 98 ug | < 0.0563 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017007 | Sample ID: | PM042123-52 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:46 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|---------|--------|---------------|--------|-----------------|-------|------|-------|---------------|
|---------|--------|---------------|--------|-----------------|-------|------|-------|---------------|



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Final Report

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|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017007 | Sample ID: | PM042123-52 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:46 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1645150 L | 1000 ug | | | 25500 ug | 16 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017008 | Sample ID: | TSP042123-53 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:46 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1659420 L | 1000 ug | | | 77400 ug | 47 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1659420 L | 14 ug | | | < 14 ug | < 0.0084 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1659420 L | 98 ug | | | < 98 ug | < 0.0591 ug/M3 |

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|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017009 | Sample ID: | PM042123-54 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:57 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1643640 L | 1000 ug | | | 29000 ug | 18 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017010 | Sample ID: | TSP042123-55 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:57 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1755570 L | 1000 ug | | | 57000 ug | 32 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1755570 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |



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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017010 | Sample ID: | TSP042123-55 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/19/2023 6:57 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-----------|-----------------------------|---------------|-----------|-----------------|-------|------|---------|----------------|
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1755570 L | 98 ug | | | < 98 ug | < 0.0558 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017011 | Sample ID: | PM042123-56 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 6:46 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1662510 L | 1000 ug | | | 19200 ug | 12 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017012 | Sample ID: | TSP042123-57 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 6:46 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1655050 L | 1000 ug | | | 46400 ug | 28 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1655050 L | 14 ug | | | < 14 ug | < 0.0085 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1655050 L | 98 ug | | | < 98 ug | < 0.0592 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017013 | Sample ID: | PM042123-58 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 7:05 AM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 1649380 L | 1000 ug | | | 23200 ug | 14 ug/M3 |



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Final Report

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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017014 | Sample ID: | TSP042123-59 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 7:05 AM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|-----------|-----------------|-------|------|----------|---------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 1749270 L | 1000 ug | | | 41300 ug | 24 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1749270 L | 14 ug | | | < 14 ug | < 0.008 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 1749270 L | 98 ug | | | < 98 ug | < 0.056 ug/M3 |

| | | | | | | | | |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017015 | Sample ID: | PM042123-60 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 3:39 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|---------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 611020 L | 1000 ug | | | 9800 ug | 16 ug/M3 |

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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017016 | Sample ID: | TSP042123-61 | MSC01 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 3:39 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 612220 L | 1000 ug | | | 23300 ug | 38 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 612220 L | 14 ug | | | < 14 ug | < 0.0229 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 612220 L | 98 ug | | | < 98 ug | < 0.1601 ug/M3 |

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|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017017 | Sample ID: | PM042123-62 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 3:39 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|---------|--------|---------------|--------|-----------------|-------|------|-------|---------------|
|---------|--------|---------------|--------|-----------------|-------|------|-------|---------------|



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Final Report

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|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017017 | Sample ID: | PM042123-62 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 3:39 PM |
|---------|------------|------------|-------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|-------------------|---------------|---------------|----------|-----------------|-------|------|----------|---------------|
| PM10 Particulates | 40CFR50 App.J | 07/27/23 | 582550 L | 1000 ug | | | 10800 ug | 19 ug/M3 |

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|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|
| Lab ID: | B207017018 | Sample ID: | TSP042123-63 | MSC02 | Media: | 8X10 PREWEIGHED GLASS | Sample Date: | 07/20/2023 3:39 PM |
|---------|------------|------------|--------------|-------|--------|-----------------------|--------------|--------------------|

| Analyte | Method | Analysis Date | Volume | Reporting Limit | Front | Rear | Total | Concentration |
|------------------------------|-----------------------------|---------------|----------|-----------------|-------|------|----------|----------------|
| Total Suspended Particulates | 40CFR50 App.B | 07/27/23 | 617130 L | 1000 ug | | | 19900 ug | 32 ug/M3 |
| Lead | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 617130 L | 14 ug | | | < 14 ug | < 0.0227 ug/M3 |
| Manganese | 40CFR50App.G Mod./EPA 6010B | 07/28/23 | 617130 L | 98 ug | | | < 98 ug | < 0.1588 ug/M3 |



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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**

Gibbons Federal

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

COC # [REDACTED] 072523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| | | | | | | | | | |
|--------------------------------|------------------------|------------|--------|------------------------|--------------------------------|-------------------|----------------|-------------|----------|
| Comments: | Analytical Test Method | Code | Matrix | Container/Preservative | 1x 250-mL Plastic, 4 Degrees C | 1x Envelope, None | B207017 | Page 1 of 4 | |
| Equipment: | | A | Air | | | | | | |
| Event: Parcel C Air Monitoring | | | | | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | Location ID | Sample Type | Depth (ft bgs) | Cooler | Comments |
| 1 PM021223-01 | AQ | 07/17/2023 | 0800 | X | FIELDQC | FB2 | 0.00 0.00 | 1 | |
| 2 TSP021423-12 | AQ | 07/17/2023 | 0800 | X X | FIELDQC | FB2 | 0.00 0.00 | 1 | |
| 3 PM042123-48 | A | 07/18/2023 | 0643 | X | MSC01 | N1 | 0.00 0.00 | 1 | |
| 4 TSP042123-49 | A | 07/18/2023 | 0643 | X X | MSC01 | N1 | 0.00 0.00 | 1 | |
| 5 PM042123-50 | A | 07/18/2023 | 0655 | X | MSC02 | N1 | 0.00 0.00 | 1 | |
| 6 TSP042123-51 | A | 07/18/2023 | 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] | 7/25/23 | 1600 | Ted G | 7/25/23 | 1600 | Shipping Date: 7/25/2023 / FEDEX / 772632166517 |
| | | | | | | Custody Seal Intact: [REDACTED] |
| | | | | | | Received by Laboratory: (Signature), [REDACTED] & condition |

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal

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

COC # [REDACTED] 072523AIRC



| | | | | |
|------------------------------------------------------------------------|--|-----------------------------------------------------------------------|--------------------------------|--|
| 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 | | | | |
| WBS Code: J310000600 | | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | | |

| Comments: | | | | | | Code Matrix | | | | Page 2 of 4 | | | | | |
|--------------------------------|--------|------------|------|------------|---|------------------------------------|---|--|--|-------------|-------------|----------------|--------------|--------|----------|
| | | | | | | 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) | Top - Bottom | Cooler | Comments |
| 1 PM042123-52 | A | 07/19/2023 | 0646 | [REDACTED] | X | | | | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 2 TSP042123-53 | A | 07/19/2023 | 0646 | [REDACTED] | | X | X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 3 PM042123-54 | A | 07/19/2023 | 0657 | [REDACTED] | X | | | | | MSC02 | N1 | 0.00 | 0.00 | 1 | |
| 4 TSP042123-55 | A | 07/19/2023 | 0657 | [REDACTED] | | 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] | 7/25/23 | 1600 | FedEx | 7/25/23 | 1600 | Shipping Date: 7/25/2023 / FEDEX / 7726 3210 6517 |
| | | | | | | <i>Custody Seal Intact:</i> |
| | | | | | | Received by: [REDACTED] |
| | | | | | | |
| | | | | | | |

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal

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

COC # 072523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | | |
| WBS Code: J310000600 | Ship to: 10329 Stony Run Lane, Ashland, VA 23005 | |

| | | | | | | | | | |
|--------------------------------|------------------------------------|-------------|------|------------|-------------|-------------|----------------|--------|----------|
| Comments: | Code Matrix | Page 3 of 4 | | | | | | | |
| | 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 PM042123-56 | A | 07/20/2023 | 0646 | X | MSC01 | N1 | 0.00 0.00 | 1 | |
| 2 TSP042123-57 | A | 07/20/2023 | 0646 | X X | MSC01 | N1 | 0.00 0.00 | 1 | |
| 3 PM042123-58 | A | 07/20/2023 | 0705 | X | MSC02 | N1 | 0.00 0.00 | 1 | |
| 4 TSP042123-59 | A | 07/20/2023 | 0705 | 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] | 7/25/23 | 1600 | FedEx | 7/25/23 | 1600 | Shipping Date: 7/25/2023 / FEDEX / 7726 321 |
| | | | | | | Custody Seal Intact: [Redacted] |
| | | | | | | Received by Laboratory: (Signature, Date, Condition) [Redacted] |

**CHAIN-OF-CUSTODY
RECORD**

Gilbane Federal

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

COC # [REDACTED] 072523AIRC



| | | |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|
| 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 | Page 4 of 4 | | | | | | | | | | |
|--------------------------------|--------|--------------------------------|-------------|------------|------------------|-----------------|---------------------|-------------|-------------|----------------|--------------|--------|----------|
| | A | Air | | | | | | | | | | | |
| | Code | Container/Preservative | | | | | | | | | | | |
| | 1 | 1x 250-mL Plastic, 4 Degrees C | | | | | | | | | | | |
| Equipment: | 1 | 1x Envelope, None | | | | | | | | | | | |
| Event: Parcel C Air Monitoring | 1 | 1 | 1 | | | | | | | | | | |
| Sample ID | Matrix | Date | Time | Samp Init. | CAAIR - Air PM10 | N0500 - Air TSP | SW6010B - Air Pb Mn | Location ID | Sample Type | Depth (ft bgs) | Top - Bottom | Cooler | Comments |
| 1 PM042123-60 | A | 07/20/2023 | 1539 | [REDACTED] | X | | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 2 TSP042123-61 | A | 07/20/2023 | 1539 | [REDACTED] | | X X | | MSC01 | N1 | 0.00 | 0.00 | 1 | |
| 3 PM042123-62 | A | 07/20/2023 | 1539 | [REDACTED] | X | | | MSC02 | N1 | 0.00 | 0.00 | 1 | |
| 4 TSP042123-63 | A | 07/20/2023 | 1539 | [REDACTED] | | 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] | 7/25/23 | 1600 | [REDACTED] SCD (X) | 7/25/23 | 1600 | Shipping Date: 7/25/2023 / FEDEX / 7726 3216 6517 |
| | | | | | | Custody Seal Intact: [REDACTED] |
| | | | | | | Received by Laboratory: (Signature, Date, Condition) |

| Project Name: Hunters Point Shipyard, Parcel C Removal Site | | | | | |
|-------------------------------------------------------------|--------------|--------|------------|------|----------------------|
| Project Number: J310000600 | | | | | |
| WBS Code: J310000600 | | | | | |
| Event: Parcel C Air Monitoring | | | | | |
| | Sample ID | Matrix | Date | Time | Comments |
| 1 | PM021223-01 | AQ | 07/17/2023 | 0800 | |
| 2 | TSP021423-12 | AQ | 07/17/2023 | 0800 | |
| 3 | PM042123-48 | A | 07/18/2023 | 0643 | VOLUME (M3): 1669.18 |
| 4 | TSP042123-49 | A | 07/18/2023 | 0643 | VOLUME (M3): 1659.45 |
| 5 | PM042123-50 | A | 07/18/2023 | 0655 | VOLUME (M3): 1636.63 |
| 6 | TSP042123-51 | A | 07/18/2023 | 0655 | VOLUME (M3): 1740.44 |
| 7 | PM042123-52 | A | 07/19/2023 | 0646 | VOLUME (M3): 1645.15 |
| 8 | TSP042123-53 | A | 07/19/2023 | 0646 | VOLUME (M3): 1659.42 |
| 9 | PM042123-54 | A | 07/19/2023 | 0657 | VOLUME (M3): 1643.64 |
| 10 | TSP042123-55 | A | 07/19/2023 | 0657 | VOLUME (M3): 1755.57 |
| 11 | PM042123-56 | A | 07/20/2023 | 0646 | VOLUME (M3): 1662.51 |
| 12 | TSP042123-57 | A | 07/20/2023 | 0646 | VOLUME (M3): 1655.05 |
| 13 | PM042123-58 | A | 07/20/2023 | 0705 | VOLUME (M3): 1649.38 |
| 14 | TSP042123-59 | A | 07/20/2023 | 0705 | VOLUME (M3): 1749.27 |
| 15 | PM042123-60 | A | 07/20/2023 | 1539 | VOLUME (M3): 611.02 |
| 16 | TSP042123-61 | A | 07/20/2023 | 1539 | VOLUME (M3): 612.22 |
| 17 | PM042123-62 | A | 07/20/2023 | 1539 | VOLUME (M3): 582.55 |
| 18 | TSP042123-63 | A | 07/20/2023 | 1539 | VOLUME (M3): 617.13 |

| Sample ID | Cubic Meter | Volume |
|------------------|--------------------|---------------|
| PM042123-48 | 1669.18 | 1669180 |
| TSP042123-49 | 1659.45 | 1659450 |
| PM042123-50 | 1636.63 | 1636630 |
| TSP042123-51 | 1740.44 | 1740440 |
| PM042123-52 | 1645.15 | 1645150 |
| TSP042123-53 | 1659.42 | 1659420 |
| PM042123-54 | 1643.64 | 1643640 |
| TSP042123-55 | 1755.57 | 1755570 |
| PM042123-56 | 1662.51 | 1662510 |
| TSP042123-57 | 1655.05 | 1655050 |
| PM042123-58 | 1649.38 | 1649380 |
| TSP042123-59 | 1749.27 | 1749270 |
| PM042123-60 | 611.02 | 611020 |
| TSP042123-61 | 612.22 | 612220 |
| PM042123-62 | 582.55 | 582550 |
| TSP042123-63 | 617.13 | 617130 |
| | 0 | |
| | 0 | |
| | 0 | |



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 #: B207017

Report Date: 8/4/2023

Batch ID: ICP230728A **Analysis Date:** 7/28/2023
Media:: 8X10PW GFF **Preparation Date** 7/28/2023

Blank Spike Results

| QC ID | QC Type | Parameter | Percent Recovery | | | | |
|-----------|---------|-----------|------------------|------|------------|-----|-------|
| | | | LCS | LCSD | Acceptance | RPD | Limit |
| LCS ICP23 | BLKSPK | Lead | 92 | 95 | 75-125 | 3.4 | 20 |
| LCS ICP23 | BLKSPK | Manganese | 84 | 85 | 75-125 | 1.7 | 20 |

Method Blank Results

| QC ID | QC Type | Parameter | Result | RL | Units |
|----------|---------|-----------|--------|----|-------|
| LMB ICP2 | LMB | Lead | < 14 | 14 | ug |
| LMB ICP2 | LMB | Manganese | < 98 | 98 | ug |