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

AIR MONITORING SUMMARY REPORT FOR PARCEL E REMEDIAL ACTION PHASE 2

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA

August 1st, 2021 through August 31st, 2021

Approved for public release; distribution is unlimited

DCN: GLBN-0005-4332-0071

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Prepared for:

Department of the Navy
Naval Facilities Engineering Systems Command Southwest
BRAC PMO West
33000 Nixie Way, Bldg, 50
San Diego, CA 92147

Prepared by:

Gilbane Federal
1655 Grant Street, Suite 1200
Concord, CA 94520

Contract Number: N62473-17-D-0005; Task Order No. N6247317F4332

Table of Contents

List of Attachments

List of Figures

List of Tables

Acronyms and Abbreviations

AMSR ..... *Air Monitoring Summary Report*
Cal/OSHA ..... *California Occupational Safety and Health Administration*
Cfm ..... *cubic feet per minute*
CFR ..... *Code of Federal Regulations*
CTO ..... *Contract Task Order*
DMCP ..... *Dust Monitoring and Control Plan*
DTSC ..... *State of California Department of Toxic Substances Control*
EPA ..... *United States Environmental Protection Agency*
fiber/cm^3 ..... *fiber per cubic centimeter*
Gilbane ..... *Gilbane Federal*
HPNS ..... *Hunters Point Naval Shipyard*
L/min ..... *liters per minute*
mg/m^3 ..... *milligrams per cubic meter*
Navy ..... *U.S. Department of the Navy*
NIOSH ..... *National Institute for Occupational Safety and Health*
PEL ..... *permissible exposure limit*
PM10 ..... *particulate matter less than 10 microns in diameter*
RAWP ..... *Remedial Action Work Plan*
TSP ..... *total suspended particulates*
TWA ..... *time-weighted average*
$\mu g/m^3$ ..... *micrograms per cubic meter*

1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by Gilbane Federal (Gilbane) 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) N6247317F4332. Gilbane is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Monitoring and Control Plan (DMCP), included as Appendix E to *Final Remedial Action Work Plan, Parcel E Remedial Action Phase 2, Hunters Point Naval Shipyard, San Francisco, California* (RAWP; Gilbane, 2019a). The Dust Monitoring and Control Plan (DMCP) describes the procedures that minimize dust during work activities and requires air monitoring to ensure these procedures are effective. The DMCP helps 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 Gilbane at HPNS from August 1st, 2021 through August 31st, 2021 and compares the results with the established action levels presented in the DMCP (Appendix E of the RAWP [Gilbane, 2019a]).

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2.0 Monitoring Site Locations

Air monitoring stations were deployed at one upwind and one downwind location from the work area whenever active soil handling operations were in progress. Based on past meteorological data, the prevalent wind direction at HPNS was from the west or west-southwest. The locations of Parcel E 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 Hunters Point Station (APTIM HPNS – KCASANFR1504) 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) and Metals (Copper, Lead, and Manganese)
3. Total suspended particulates (TSP)
4. Radiological air samplers

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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 a period of less than 24 hours. Asbestos results were reviewed for anomalies and compliance with the action levels listed below.

3.2 PM10, Copper, Lead, and Manganese

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 a period of time (usually 8 or 24 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. 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 a certified analytical laboratory where 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.

Once the PM10 concentration was gravimetrically determined, the filter was analyzed for copper, manganese and lead in accordance with EPA Method 6020 (equivalent to IO-3.5 in the Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air [EPA, 1999]), and for lead in accordance with a modified EPA Method 12.

3.3 TSP

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 an approximately 8 to 24-hour period (depending on the duration of the work activity). 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.

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, 2019b).

The radiological air sample concentration is counted on a Low Background Protean WPC-9950 and analyzed for gross alpha and beta activity. The calculated airborne concentration in microcuries is 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 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 of the approved DMCP (Appendix E of the RAWP [Gilbane, 2019a]. The PM10 delta was additionally compared to the criterion taken from the *Technical Memorandum: Draft Dust Action Levels for Parcel E, Hunters Point Shipyard, San Francisco, California* (Department of Toxic Substances Control [DTSC] 2017) of 50 micrograms per cubic meter (ug/m^3).

Table 4-1: Air Monitoring Threshold Criteria

Test Parameter	Threshold Criteria	Threshold Criteria Reference
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL
PM10[a]	5,000 ug/m^3	Cal/OSHA PEL
TSP	0.5 mg/m^3	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Copper	1.0 mg/m^3	Cal/OSHA PEL
Lead	0.050 mg/m^3	Cal/OSHA PEL
Manganese	0.200 mg/m^3	Cal/OSHA PEL
Radiological	10% of Effluent Concentration Values	Occupational and public air concentration limits for ROCs are published in 10 Code of Federal Regulations Part 20, Appendix B.

Notes:

[a] = The Cal/OSHA PEL for particulates not otherwise regulated (respiratory) is used for PM10 comparison.

u/m^3 = micrograms per cubic meter

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

fiber/cm^3 = fiber per cubic centimeter

HPNS = Hunters Point Naval Shipyard

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM10 = particulate matter less than 10 microns in diameter

ROC = radionuclide of concern

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**. Data was collected from Station 1 in Parcel E and Station 2 in Parcel D-1 from August 1st to August 31st, 2021, during which Gilbane was importing sand fill. Samples were not collected during periods of site inactivity, rain events, and/or while site work was limited to non-earth moving tasks. The site was closed from August 1st to August 22nd, 2021.

Construction and remediation activities conducted from August 1st to August 31st, 2021 did not result in the exceedance of the established threshold criteria, as described in detail below.

Asbestos results from August 1st to August 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 2**.

PM10, lead, manganese, and copper results from August 1st to August 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 3** and **Attachment 4**.

TSP results from August 1st to August 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 5**.

Radiological air sampling results from August 1st to August 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 6**.

Analytical laboratory reports are included as **Attachment 7** and were subjected to cursory review by the Project Chemist. No data quality issues were noted. The data, as qualified, should be considered usable for their intended purposes.

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6.0 References

Department of Toxic Substances Control (DTSC), 2017. Draft Technical Memorandum: Dust Action Levels for Parcel E, Hunters Point. May.

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

United States Environmental Protection Agency (EPA), 1998. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Specific Methods.

Gilbane Federal, 2019a. Final Remedial Action Work Plan, Parcel E Remedial Action, Phase 2, Hunters Point Naval Shipyard, San Francisco, California. October

Gilbane Federal, 2019b. Radiological Procedure PR-RP-150 *Radiological Survey and Sampling, Version 01,* October 1.

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FIGURES

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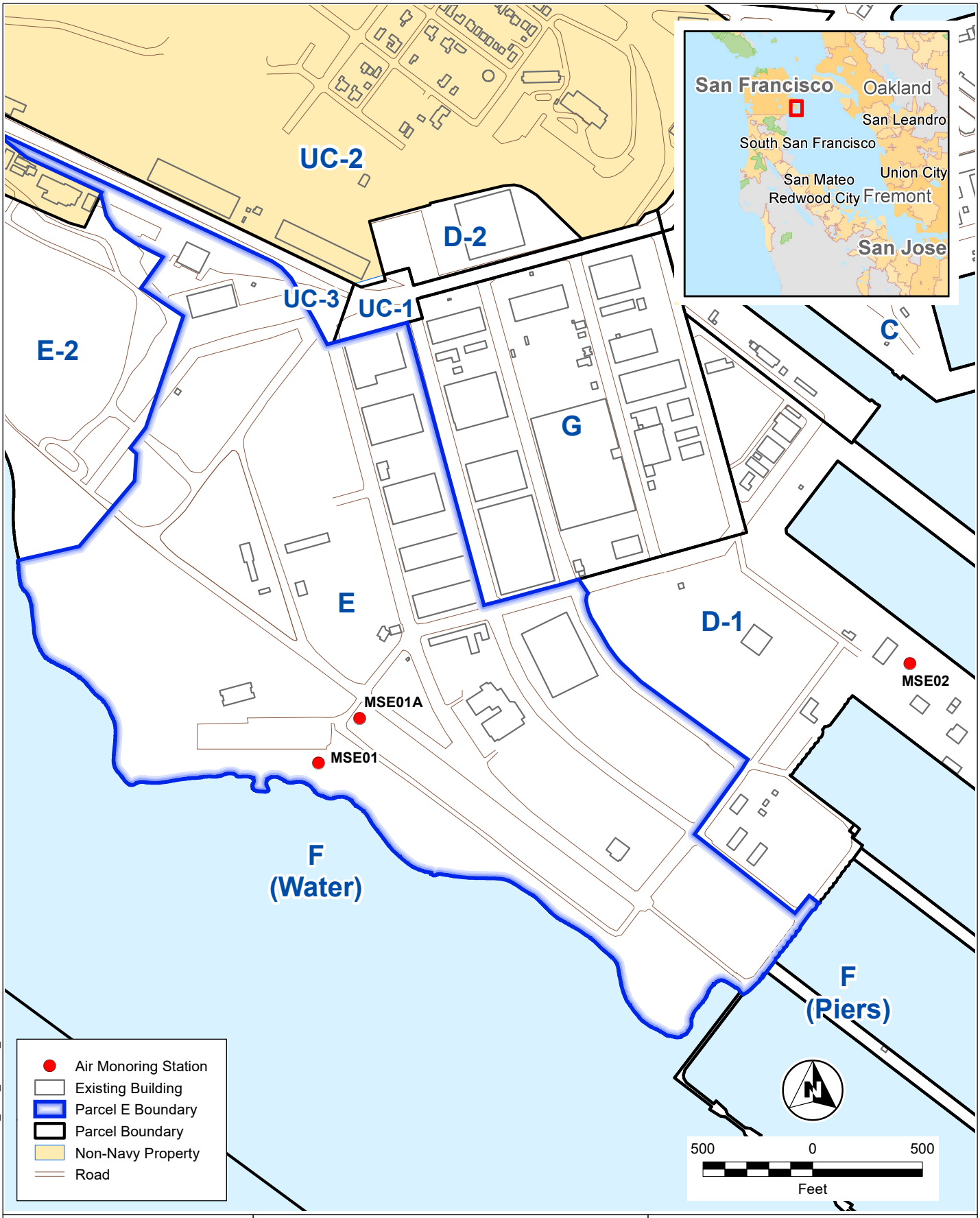

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Gilbane

Parcel E
Hunters Point Naval Shipyard
San Franscisco, California

Figure 2-1
Air Monitoring Stations

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ATTACHMENT 1

AMBIENT PRESSURE, TEMPERATURE, AND PREVALENT WIND DIRECTION MONITORING RESULTS

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

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)	Prevalent Wind Direction
8/23/2021	29.95	57.67	W
8/24/2021	30.01	60.17	W
8/25/2021	30.06	59.33	W
8/26/2021	30.04	64.94	W
8/30/2021	29.80	61.15	WNW
8/31/2021	29.81	60.00	W

Notes:

Data collected using wunderground.com from APTIM HPNS - KCASANFR1504

°F = degree Fareheit

in Hg = inches of mercury

E = East

N = North

S = South

W = West

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ATTACHMENT 2
ASBESTOS MONITORING RESULTS

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Attachment 2: Asbestos Monitoring Results

Sample, Date and Station Information			Sampler Run Information		Asbestos Fibers		
Sample ID	Sample Start Date[1]	Monitoring Station	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSE01-082321	08/23/21	1	456	912	12.0	0.006	No
MSE02-082321	08/23/21	2	475	950	17.0	0.009	No
MSE01-082421	08/24/21	1	411	822	15.0	0.009	No
MSE02-082421	08/24/21	2	446	892	12.5	0.015	No
MSE01-082521	08/25/21	1	445	890	16.5	0.009	No
MSE02-082521	08/25/21	2	494	988	17.5	0.009	No
MSE01-082621	08/26/21	1	427	854	13.0	0.007	No
MSE02-082621	08/26/21	2	457	914	11.5	0.006	No
MSE01-083021	08/30/21	1	469	938	10.5	0.005	No
MSE02-083021	08/30/21	2	493	986	20.0	0.010	No
MSE01-083121	08/31/21	1	483	966	22.5	0.011	No
MSE02-083121	08/31/21	2	487	974	22.0	0.011	No

Notes:

[1]Sample "start" date indicates the date upon which sample collection began.

Samples analyzed by A&B Labs

Sample locations are shown on Figure 2-1

L = liter

min = minutes

fibers/cm^3 = fibers per cubic centimeter

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ATTACHMENT 3

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

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

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	Delta between Downwind and Upwind (mg/m^3)	Delta between Downwind and Upwind (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[4] (ug/m^3)	Exceedance (Yes/No)
GILBANEPM062921-1302	1	8/24/2021	1753.87	0.024						
GILBANEPM062921-1303	2	8/24/2021	1791.73	0.016	-0.0080	-8.0	5,000	No	50	No
GILBANEPM070821-1304	1	8/25/2021	1741.07	0.026						
GILBANEPM070821-1305	2	8/25/2021[3]	1252.17	0.020	-0.0060	-6.0	5,000	No	50	No
GILBANEPM070821-1306	1	8/26/2021	1704.75	0.031						
GILBANEPM070821-1307	2	8/26/2021	1772.96	0.023	-0.0080	-8.0	5,000	No	50	No
GILBANEPM070821-1308	1	8/26/2021[2]	525.99	0.034						
GILBANEPM070821-1309	2	8/26/2021[2]	576.69	0.026	-0.0080	-8.0	5,000	No	50	No
GILBANEPM070821-1310	1	8/31/2021	1713.88	0.044						
GILBANEPM070821-1311	2	8/31/2021	1772.72	0.040	-0.0040	-4.0	5,000	No	50	No

Notes:

[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.

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

[3]Generator malfunction

[4]PM10 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.

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

Cal/OSHA = California Division of Occupational Safety and Health

HERO = Human and Ecological Risk Office

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM_{10} = particulate matter smaller than 10 microns in diameter

ug/m^3 = micrograms per cubic meter

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ATTACHMENT 4
COPPER, LEAD, AND MANGANESE MONITORING RESULTS

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Attachment 4: Copper, Lead, and Manganese Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Copper		Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GILBANEPM062921-1302	1	8/24/2021	1753.87	0.000140	No	0.0000025	No	0.0000100	No
GILBANEPM062921-1303	2	8/24/2021	1791.73	0.000012	No	0.0000016	No	0.0000048	No
GILBANEPM070821-1304	1	8/25/2021	1741.07	0.000200	No	0.0000028	No	0.0000100	No
GILBANEPM070821-1305	2	8/25/2021[3]	1252.17	0.000031	No	0.0000013	No	0.0000043	No
GILBANEPM070821-1306	1	8/26/2021	1704.75	0.000160	No	0.0000027	No	0.0000093	No
GILBANEPM070821-1307	2	8/26/2021	1772.96	0.000022	No	0.0000065	No	0.0000043	No
GILBANEPM070821-1308	1	8/26/2021[2]	525.99	0.000140	No	0.0000039	No	0.0001900	No
GILBANEPM070821-1309	2	8/26/2021[2]	576.69	0.000033	No	0.0000024	No	0.0000071	No
GILBANEPM070821-1310	1	8/31/2021	1713.88	0.000150	No	0.0000048	No	0.0000130	No
GILBANEPM070821-1311	2	8/31/2021	1772.72	0.000730	No	0.0000030	No	0.0000086	No

Notes:

[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.

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

[3]Generator malfunction

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

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ATTACHMENT 5

TOTAL SUSPENDED PARTICULATES MONITORING RESULTS

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Attachment 5: Total Suspended Particulates Monitoring Results

Sample, Date and Station Information			Sampler Run Information	Total Suspended Particulates			
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Delta between Downwind and Upwind (mg/m^3)	Basewide HPNS Level (mg/m^3)	Exceedance (Yes/No)
GILBANETSP062921-1302	1	8/24/2021	1655.85	0.0375638			
GILBANETSP062921-1303	2	8/24/2021	1784.03	0.0272417	-0.010	0.5	No
GILBANETSP070821-1304	1	8/25/2021	1644.20	0.0398370			
GILBANETSP070821-1305	2	8/25/2021[3]	1251.67	0.0320372	-0.008	0.5	No
GILBANETSP070821-1306	1	8/26/2021	1475.85	0.0271708			
GILBANETSP070821-1307	2	8/26/2021	1765.20	0.0335939	0.006	0.5	No
GILBANETSP070821-1308	1	8/26/2021[2]	575.30	0.0431079			
GILBANETSP070821-1309	2	8/26/2021[2]	575.86	0.0439343	0.001	0.5	No
GILBANETSP070821-1310	1	8/31/2021	1650.51	0.0434411			
GILBANETSP070821-1311	2	8/31/2021	1773.21	0.0439316	0.000	0.5	No

Notes:

[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.

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

[3]Generator malfunction

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

HPNS = Hunters Point Naval Shipyard

m^3 = cubic meters

mg/m^3 = milligrams per cubic meter

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ATTACHMENT 6

AIR SAMPLING RESULTS – PUBLIC EXPOSURE MONITORING

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Gilbane

AIR SAMPLE RESULTS - PUBLIC EXPOSURE MONITORING

Project Information			Effluent Air Concentration			Sampling Period	Color Codes
Contract / Task Order Number:	Project Title / Location:	Gilbane Project Number:		Alpha	Beta	Air samples collected	Value < 0.1 x Effluent Conc (i.e., < 10%)
N62473-17-D-0005 / F4332	Parcel E RA HPNS, SF, CA	J310000400	Radionuclide	Ra-226	Sr-90	between 23 Aug 2021	Value > 0.1 x Effluent Conc (i.e., > 10%)
Information effective as of: 07 Sep 2021			Effluent Conc (µCi/ml)	9.E-13	6.E-12	and 31 Aug 2021	Value > Effluent Conc (i.e., > 100%)

Sample Collection									Count Information								Sample Results				Initials	
Sample Number	Sample Type	Sample Location	Equip No	Ave Flow Rate (lpm)	Start Day Time	End Date Time	Elapsed Time (min)	Volume (ml)	Inst No	Count Date	Time (min)	Counting Units	Gross Activity		Net dpm		Activity (µCi/ml)		Effluent Conc (%)		Count Tech	Data Reviewer
													Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta		
AS-0255	Perimeter	MSE01	PE10	60	8/23/21 6:50	8/23/21 15:45	535	3.2E+07	C	08/31/21	1	cpm	0.05	3.90	0.1	7.7	2.0E-15	1.1E-13	***0.2%***	***1.8%***	DVT	BCS
AS-0256	Perimeter	MSE02	PE09	60	8/23/21 6:57	8/23/21 15:35	518	3.1E+07	C	08/31/21	1	cpm	0.10	4.55	0.3	9.5	4.1E-15	1.4E-13	***0.5%***	***2.3%***	DVT	BCS
AS-0257	Perimeter	MSE01	PE10	60	8/24/21 5:00	8/24/21 15:45	645	3.9E+07	C	08/31/21	1	cpm	0.10	4.50	0.3	9.4	3.3E-15	1.1E-13	***0.4%***	***1.8%***	DVT	BCS
AS-0258	Perimeter	MSE02	PE09	60	8/24/21 4:50	8/24/21 15:50	660	4.0E+07	C	08/31/21	1	cpm	0.20	2.90	0.6	4.8	6.4E-15	5.5E-14	***0.7%***	***0.9%***	DVT	BCS
AS-0259	Perimeter	MSE01	PE10	60	8/25/21 5:05	8/25/21 15:15	610	3.7E+07	C	08/31/21	1	cpm	0.15	4.20	0.4	8.5	5.2E-15	1.0E-13	***0.6%***	***1.7%***	DVT	BCS
AS-0260	Perimeter	MSE02	PE09	60	8/25/21 5:15	8/25/21 15:30	615	3.7E+07	C	08/31/21	1	cpm	0.10	4.40	0.3	9.1	3.4E-15	1.1E-13	***0.4%***	***1.8%***	DVT	BCS
AS-0261	Perimeter	MSE01	PE10	60	8/26/21 5:05	8/26/21 14:30	565	3.4E+07	C	08/31/21	1	cpm	0.20	5.00	0.6	10.8	7.5E-15	1.4E-13	***0.8%***	***2.4%***	DVT	BCS
AS-0262	Perimeter	MSE02	PE09	60	8/26/21 5:00	8/26/21 14:45	585	3.5E+07	C	08/31/21	1	cpm	0.25	4.70	0.7	9.9	9.0E-15	1.3E-13	***1.0%***	***2.1%***	DVT	BCS
AS-0263	Perimeter	MSE01	PE09	60	8/30/21 6:40	8/30/21 15:47	547	3.3E+07	C	09/07/21	1	cpm	0.25	4.35	0.7	8.9	9.6E-15	1.2E-13	***1.1%***	***2.0%***	DVT	BCS
AS-0264	Perimeter	MSE02	PE10	60	8/30/21 6:30	8/30/21 15:31	541	3.2E+07	C	09/07/21	1	cpm	0.10	3.95	0.3	7.8	3.9E-15	1.1E-13	***0.4%***	***1.8%***	DVT	BCS
AS-0265	Perimeter	MSE01	PE09	60	8/31/21 5:00	8/31/21 15:40	640	3.8E+07	C	09/07/21	1	cpm	0.15	4.30	0.4	8.8	4.9E-15	1.0E-13	***0.5%***	***1.7%***	DVT	BCS
AS-0266	Perimeter	MSE02	PE10	60	8/31/21 5:05	8/31/21 15:50	645	3.9E+07	C	09/07/21	1	cpm	0.25	4.85	0.7	10.4	8.2E-15	1.2E-13	***0.9%***	***2.0%***	DVT	BCS

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ATTACHMENT 7
LABORATORY REPORTS

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Laboratory Analysis Report

Job ID : 21082128

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

Client Project Name :
HPNS Parcel E Phase II J310000400

Report To :	Client Name:	Gilbane	Total Number of Pages:	5
	Attn:	[redacted]	P.O.#. :	J310000400-0015
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	08/26/2021 10:17
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	[redacted]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-082321	8/23/2021 14:51	Cassette	21082128.01
MSE01-082321	8/23/2021 15:01	Cassette	21082128.02

[redacted]

Released By: [redacted]

Title: [redacted]

Analyst: [redacted]

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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 9/1/2021

Job ID : 21082128
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II J310000400 Attn: [redacted]

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
21082128.01	MSE01-082321	08/23/2021	Area				456	912	100	12.0	15.287	0.006		09/01/21	[redacted]
21082128.02	MSE01-082321	08/23/2021	Area				475	950	100	17	21.656	0.009		09/01/21	[redacted]

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

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Sample Condition Checklist

A&B JobID : **21082128**	Date Received : **08/26/2021**	Time Received : **10:17AM**
Client Name : **Gilbane**		
Temperature : **23.2°C**	Sample pH : **N/A**	
Thermometer ID : **IR2**	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 :** **Water** ☐ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☑ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged 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 within 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 SX's in box with custody seal. -CH 08/26/21

Received by : [redacted]

Check in by/date : [redacted] / 08/26/2021

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Event ID: Air Monitoring

COC# KT082421ASB

Gilbane

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400

Project Manager: [redacted]

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs

Address: 10100 East Fwy Ste. 100
Houston TX 77029

Contact Name: [redacted]

Date: 8/24/2021

Page: 1 of 1

Analysis:

Preservative: None

Container Type: Filter

Flow Rate = 2 L/min

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Asbestos	Special Instructions/Comments Total Time (min)
MSE01-082321 01A	8/23/2021	1451	NA	NA	1	AA	X	456
MSE02-082321 02A	8/23/2021	1501	NA	NA	1	AA	X	475

Job ID:21082128

08/26/2021 Gilbane ACH

Sampled By: [redacted]

Signature:

Special Instructions: None

Send Results to: edawson@gilbaneco.com
ktom@gilbaneco.com

Turnaround Time: Standard

Sample [redacted]

Courier/Airbill No.: FedEx/ 7746 1963 4364

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
[redacted]	8/24/21	1900	FedEx	8/24/21	1400
FEDEX	8.25.21	10:17	[redacted]	8.26.21	10:17

ORIGIN ID: [redacted] (925) 250-6097
GILBANE
200 FISHER STREET
SAN FRANCISCO, CA 94124
UNITED STATES US

SHIP DATE: 24AUG21
ACTWGT: 1.00 LB
CAD: 102700259/INET4400

BILL SENDER

TO [redacted]
A & B LABS
10100 EAST FREEWAY, SUITE 100
HOUSTON TX 77029

INV: [redacted]
PO:
DEPT:

REF: J310003400 B.00.0908000

56DJ1/BAF3/FE4A

J212021078981uv

FedEx Express

TRK# 0201 7746 1963 4364

WED - 25 AUG 4:30P
STANDARD OVERNIGHT

UL HBYA

77029 IAH TX-US

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

Laboratory Analysis Report

Job ID : 21082313

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

Client Project Name :
HPNS Parcel E Phase II J310000400

Report To :	Client Name:	Gilbane	Total Number of Pages:	5
	Attn:	[redacted]	P.O.#. :	J310000400-0015
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	08/27/2021 16:05
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	[redacted]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-082421	8/24/2021 14:40	Cassette	21082313.01
MSE02-082421	8/24/2021 14:45	Cassette	21082313.02
MSE01-082521	8/25/2021 15:15	Cassette	21082313.03
MSE02-082521	8/25/2021 15:22	Cassette	21082313.04

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

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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 [redacted]

Date 9/1/2021

Job ID : 21082313
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II J310000400 Attn: [redacted]

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
21082313.01	MSE01-082421	08/24/2021	Area	2			411	822	100	15.0	19.108	0.009		09/01/21	[redacted]
21082313.02	MSE02-082421	08/24/2021	Area	2			446	892	100	12.5	15.924	0.015		09/01/21	[redacted]
21082313.03	MSE01-082521	08/25/2021	Area	2			445	890	100	16.5	21.019	0.009		09/01/21	[redacted]
21082313.04	MSE02-082521	08/25/2021	Area	2			494	988	100	17.5	22.293	0.009		09/01/21	[redacted]

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

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Sample Condition Checklist

A&B JobID : **21082313**	Date Received : **08/27/2021**	Time Received : **4:05PM**
Client Name : **Gilbane**		
Temperature : **28.5-0.1cf=28.4°C**	Sample pH : **N/A**	
Thermometer ID : **IR1**	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 :** **Water** ☐ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☑ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged 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 within 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 by : [redacted]

Check in by/date : [redacted] / 08/30/2021

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Event ID: Air Monitoring

COC# KT082621ASB

Gilbane

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400

Project Manager: [redacted]

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs

Address: 10100 East Fwy Ste. 100
Houston TX 77029

Contact Name: [redacted]

Date: 8/26/2021

Page: 1 of 1

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Asbestos	Analysis: Preservative: None / Container Type: Filter	Flow Rate = 2 L/min; Special Instructions/Comments; Total Time (min)
MSE01-082421 01A	8/24/2021	1440	NA	NA	1	AA	X		411
MSE02-082421 02A	8/24/2021	1445	NA	NA	1	AA	X		446
MSE01-082521 03A	8/25/2021	1515	NA	NA	1	AA	X		445
MSE02-082521 04A	8/25/2021	1522	NA	NA	1	AA	X		494

Job ID:21082313

08/27/2021 Gilbane ACH

Sampled By: [redacted]

Signature:

Special Instructions: None

Send Results to: [redacted]

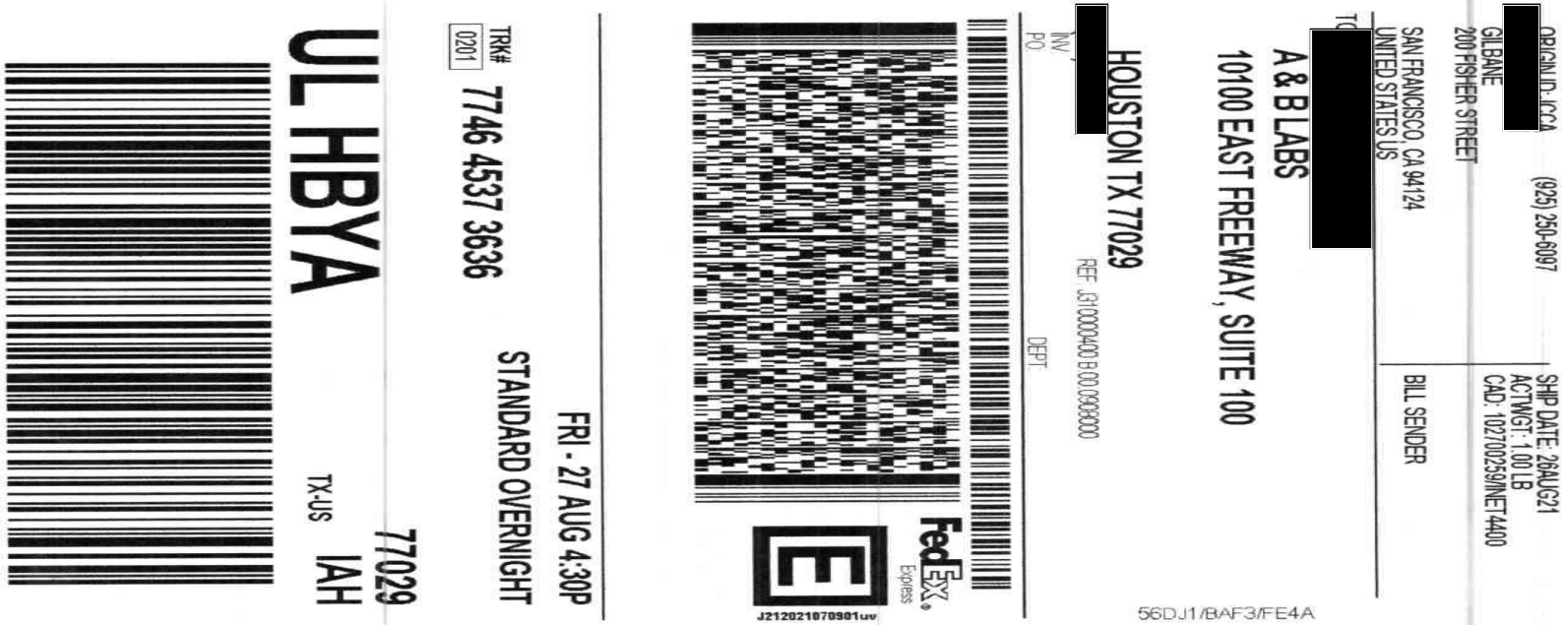
Turnaround Time: Standard

Sampler: [redacted]

Courier/Airbill No.: FedEx/ 7746 4537 3636

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
[redacted]	8/26/21	1500	FedEx [redacted]	8/27/21	1605
FEDEX	8/27/21	1605			

TEMP: 28.5-0.1 = 28.4°C ID: IR2



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

← CUSTODY SEAL

Laboratory Analysis Report

Job ID : 21090142

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

Client Project Name :
HPNS Parcel E Phase II J310000400

Report To :	Client Name:	Gilbane	Total Number of Pages:	5
	Attn:	[redacted]	P.O.#. :	J310000400-0015
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	09/01/2021 15:35
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	[redacted]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-082621	8/26/2021 14:37	Cassette	21090142.01
MSE02-082621	8/26/2021 14:58	Cassette	21090142.02
MSE01-083021	8/30/2021 15:21	Cassette	21090142.03
MSE02-083021	8/30/2021 15:28	Cassette	21090142.04

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

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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 9/8/2021

Job ID : 21090142
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II J310000400 Attn: [redacted]

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
21090142.01	MSE01-082621	08/26/2021	Area	2			427	854	100	13.0	16.561	0.007		09/08/21	[redacted]
21090142.02	MSE02-082621	08/26/2021	Area	2			457	914	100	11.5	14.650	0.006		09/08/21	[redacted]
21090142.03	MSE01-083021	08/30/2021	Area	2			469	938	100	10.5	13.376	0.005		09/08/21	[redacted]
21090142.04	MSE02-083021	08/30/2021	Area	2			493	986	100	20.0	25.478	0.010		09/08/21	[redacted]

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

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Sample Condition Checklist

A&B JobID : **21090142**	Date Received : **09/01/2021**	Time Received : **3:35PM**
Client Name : **Gilbane**		
Temperature : **25.1°C**	Sample pH : **N/A**	
Thermometer ID : **IR1**	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 :** **Water** ☐ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☑ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged 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 within 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 recieved, however samples are recieved in a box with a custody seal. 09/01/21 JV

Received by : [redacted]

Check in by/date : [redacted] / 09/02/2021

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Event ID: Air Monitoring

COC# KT083121ASB

Gilbane Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400

Project Manager: [redacted]

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs

Address: 10100 East Fwy Ste. 100
Houston TX 77029

Contact Name: [redacted]

Date: 8/31/2021

Page: 1 of 1

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Asbestos	Analysis: Preservative: None / Container Type: Filter	Flow Rate = 2 L/min; Special Instructions/Comments; Total Time (min)
MSE01-082621 01A	8/26/2021	1437	NA	NA	1	AA	X		427
MSE02-082621 02A	8/26/2021	1458	NA	NA	1	AA	X		457
MSE01-083021 03A	8/30/2021	1521	NA	NA	1	AA	X		469
MSE02-083021 04A	8/30/2021	1528	NA	NA	1	AA	X		493

* Job ID:21090142

09/01/2021 Gilbane ACH

Sampled By: [redacted]

Signature:

Special Instructions: None

Send Results to: [redacted]

Turnaround Time: Standard

Sampler: [redacted]

Courier/Airbill No.: FedEx/ 7746 8583 3743

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
[redacted]	8/31/21	1500	Fed Ex	8/31/21	1500
FED EX	9.1.21	15:35	[redacted]	9.1.21	15:35

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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.

Laboratory Analysis Report

Job ID : 21090388

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

Client Project Name :
HPNS Parcel E Phase II J310000400

Report To :	Client Name:	Gilbane	Total Number of Pages:	5
	Attn:	[redacted]	P.O.#. :	J310000400-0015
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	09/03/2021 17:00
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	[redacted]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-083121	8/31/2021 15:21	Cassette	21090388.01
MSE02-083121	8/31/2021 15:15	Cassette	21090388.02
MSE01-090121	9/1/2021 15:10	Cassette	21090388.03
MSE02-090121	9/1/2021 15:07	Cassette	21090388.04

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

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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 9/8/2021

Job ID : 21090388
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II J310000400 Attn: [redacted]

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
21090388.01	MSE01-083121	08/31/2021	Area	2			483	966	100	22.5	28.662	0.011		09/08/21	[redacted]
21090388.02	MSE02-083121	08/31/2021	Area	2			487	974	100	22.0	28.025	0.011		09/08/21	[redacted]
21090388.03	MSE01-090121	09/01/2021	Area	2			477	954	100	25.0	31.847	0.013		09/08/21	[redacted]
21090388.04	MSE02-090121	09/01/2021	Area	2			487	974	100	18.5	23.567	0.009		09/08/21	[redacted]

Detection limit of this method is estimated at 7 f/mm2 (5.5 fibers per 100 fields)

Intralaboratory Sr 5-20:0.06 20-50:0.04 50-100:0.02

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Sample Condition Checklist

A&B JobID : **21090388**	Date Received : **09/03/2021**	Time Received : **5:00PM**
Client Name : **Gilbane**		
Temperature : **22.6°C**	Sample pH : **N/A**	
Thermometer ID : **IR1**	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 :** **Water** ☐ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☑ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged 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 within 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, SX's received in box with custody seal. -CH 09/07/21

Received by : [redacted]

Check in by/date : [redacted] / 09/07/2021

Event ID: Air Monitoring

COC# KT090221ASB

Gilbane

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II 1310000400

Project Manager: [redacted]

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs

Address: 10100 East Fwy Ste. 100, Houston TX 77029

Contact Name: [redacted]

Date: 9/02/2021

Page: 1 of 1

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis: Asbestos	Preservative: None / Container Type: Filter	Flow Rate = 2 L/min Special Instructions/Comments Total Time (min)
MSE01-083121 01A	8/31/2021	1521	NA	NA	1	AA	X		483
MSE02-083121 02A	8/31/2021	1515	NA	NA	1	AA	X		487
MSE01-090121 03A	9/01/2021	1510	NA	NA	1	AA	X		477
MSE02-090121 04A	9/01/2021	1507	NA	NA	1	AA	X		487

Job ID:21090388

09/03/2021 Gilbane ACH

22.6°C

IR1 CM

Sampled By: [redacted]

Signature:

Special Instructions: None

Send Results to: [redacted]

Turnaround Time: Standard

Sampler: [redacted]

Relinquished: [redacted] FEDEX

Date:	Time:
9/2/21	1600
9.2.21	1700
9/3/21	

Courier/Airbill No.: FedEx/ 7747 1342 5439

Received By/ Affiliation: FedEx [redacted]

Date:	Time:
9/2/21	1600
9/3/21	1700

Page 4 of 5

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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eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-78040-1
Client Project/Site: Hunters Point, Parcel E, Phase 2

For:
Gilbane Federal
2355 E. Camelback Road
Suite 850
Phoenix, Arizona 85016

[redacted]

[redacted]

Authorized for release by:
9/1/2021 4:42:56 PM

[redacted] Project Manager I
[redacted]
[redacted]

Table of Contents

Definitions/Glossary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Job ID: 320-78040-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-78040-1

Comments
No additional comments.

Receipt
The samples were received on 8/25/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 17.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Client Sample ID: GILBANEPM062921-1302 — Lab Sample ID: 320-78040-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0025		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.14		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.010		0.00068	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	24		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP062921-1302 — Lab Sample ID: 320-78040-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	37.5638		0.3020	0.3020	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM062921-1303 — Lab Sample ID: 320-78040-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0016		0.00067	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.012		0.0013	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0048		0.00067	0.000094	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	16		0.28	0.28	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP062921-1303 — Lab Sample ID: 320-78040-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	27.2417		0.2803	0.2803	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Gilbane Federal
Job ID: 320-78040-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM062921-1302
Lab Sample ID: 320-78040-1
Date Collected: 08/24/21 07:43
Matrix: Air
Date Received: 08/25/21 09:50
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0025		0.00068	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:23	1
Copper	0.14		0.0014	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:23	1
Manganese	0.010		0.00068	0.000096	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	24		0.29	0.29	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP062921-1302
Lab Sample ID: 320-78040-2
Date Collected: 08/24/21 07:43
Matrix: Air
Date Received: 08/25/21 09:50
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	37.5638		0.3020	0.3020	ug/m3 (Air)			08/30/21 09:20	1

Client Sample ID: GILBANEPM062921-1303
Lab Sample ID: 320-78040-3
Date Collected: 08/24/21 07:19
Matrix: Air
Date Received: 08/25/21 09:50
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0016		0.00067	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:32	1
Copper	0.012		0.0013	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:32	1
Manganese	0.0048		0.00067	0.000094	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	16		0.28	0.28	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP062921-1303
Lab Sample ID: 320-78040-4
Date Collected: 08/24/21 07:19
Matrix: Air
Date Received: 08/25/21 09:50
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	27.2417		0.2803	0.2803	ug/m3 (Air)			08/30/21 09:20	1

QC Sample Results

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-521644/1-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1

Lab Sample ID: LCS 320-521644/2-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.240	0.229		ug/m3 (Air)		96	86 - 111
Copper	0.240	0.244		ug/m3 (Air)		102	85 - 110
Manganese	0.240	0.242		ug/m3 (Air)		101	88 - 110

Lab Sample ID: LCSD 320-521644/3-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 521698

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.240	0.232		ug/m3 (Air)		97	86 - 111	1	15
Copper	0.240	0.240		ug/m3 (Air)		100	85 - 110	2	15
Manganese	0.240	0.239		ug/m3 (Air)		99	88 - 110	1	15

QC Association Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Metals

Pre Prep Batch: 521644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-1	GILBANEPM062921-1302	Total/NA	Air	Filter to Air	
320-78040-3	GILBANEPM062921-1303	Total/NA	Air	Filter to Air	
MB 320-521644/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 521698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-1	GILBANEPM062921-1302	Total/NA	Air	3050B	521644
320-78040-3	GILBANEPM062921-1303	Total/NA	Air	3050B	521644
MB 320-521644/1-B	Method Blank	Total/NA	Air	3050B	521644
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	3050B	521644
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	521644

Analysis Batch: 521818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-1	GILBANEPM062921-1302	Total/NA	Air	6020	521698
320-78040-3	GILBANEPM062921-1303	Total/NA	Air	6020	521698
MB 320-521644/1-B	Method Blank	Total/NA	Air	6020	521698
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	6020	521698
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	6020	521698

General Chemistry

Pre Prep Batch: 521378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-2	GILBANETSP062921-1302	Total/NA	Air	Filter to Air	
320-78040-4	GILBANETSP062921-1303	Total/NA	Air	Filter to Air	

Analysis Batch: 521738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-1	GILBANEPM062921-1302	Total/NA	Air	PM10	
320-78040-3	GILBANEPM062921-1303	Total/NA	Air	PM10	

Analysis Batch: 521754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78040-2	GILBANETSP062921-1302	Total/NA	Air	40CFR50 App B	521378
320-78040-4	GILBANETSP062921-1303	Total/NA	Air	40CFR50 App B	521378

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Client Sample ID: GILBANEPM062921-1302
Lab Sample ID: 320-78040-1
Date Collected: 08/24/21 07:43
Matrix: Air
Date Received: 08/25/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:23	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0428 g	521738	08/30/21 09:20	DPM	TAL SAC

Client Sample ID: GILBANETSP062921-1302
Lab Sample ID: 320-78040-2
Date Collected: 08/24/21 07:43
Matrix: Air
Date Received: 08/25/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Client Sample ID: GILBANEPM062921-1303
Lab Sample ID: 320-78040-3
Date Collected: 08/24/21 07:19
Matrix: Air
Date Received: 08/25/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:32	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0288 g	521738	08/30/21 09:20	DPM	TAL SAC

Client Sample ID: GILBANETSP062921-1303
Lab Sample ID: 320-78040-4
Date Collected: 08/24/21 07:19
Matrix: Air
Date Received: 08/25/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Gilbane Federal
Job ID: 320-78040-1
Project/Site: Hunters Point, Parcel E, Phase 2

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	TAL SAC
PM10	Particulate Matter	40CFR50J	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
Filter to Air	Filter to Air volume ratio	None	TAL SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78040-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-78040-1	GILBANEPM062921-1302	Air	08/24/21 07:43	08/25/21 09:50
320-78040-2	GILBANETSP062921-1302	Air	08/24/21 07:43	08/25/21 09:50
320-78040-3	GILBANEPM062921-1303	Air	08/24/21 07:19	08/25/21 09:50
320-78040-4	GILBANETSP062921-1303	Air	08/24/21 07:19	08/25/21 09:50

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC # KT082421AIR

Gilbane

Project Name: Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: Eurofins Environment Testing TestAmerica-Sacramento, West Sacramento, CA	Event: Parcel E Phase 2 Air Monitoring August 2021
Project Number: J310000400	POC: [redacted]	
WBS Code: J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-78040 Chain of Custody

Event: Parcel E Phase 2 Air Monitoring August 2021

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn Cu	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GILBANEPM062921-1302	A	08/24/2021	0743	KT	X		X	AMSE1	N1	0.00	0.00	1	VOLUME: 1753.87
2	GILBANETSP062921-1302	A	08/24/2021	0743	KT		X		AMSE1	N1	0.00	0.00	1	VOLUME: 1655.85
3	GILBANEPM062921-1303	A	08/24/2021	0719	KT	X		X	AMSE2	N1	0.00	0.00	1	VOLUME: 1791.73
4	GILBANETSP062921-1303	A	08/24/2021	0719	KT		X		AMSE2	N1	0.00	0.00	1	VOLUME: 1784.03
5														
6														
7														
8														
9														
10														

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	8/24/21	1400	FedEx	8/24/21	1400
			[redacted] EDDSCC	8/25/21	950

Shipping Date / Carrier / Airbill Number

Shipping Date: 8/24/2021 / FedEx 7746 1971 9621

Received by Laboratory: *(Signature, Date, Time)* **& condition**

17.5°C

Login Sample Receipt Checklist

Client: Gilbane Federal

Job Number: 320-78040-1

Login Number: 78040

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: [redacted]

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	AMBEINT TEMP
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-78155-1
Client Project/Site: Hunters Point, Parcel E, Phase 2

For:
Gilbane Federal
2355 E. Camelback Road
Suite 850
Phoenix, Arizona 85016

[redacted]

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Job ID: 320-78155-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-78155-1

Comments
No additional comments.

Receipt
The samples were received on 8/27/2021 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 20.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Client Sample ID: GILBANEPM070821-1304 — Lab Sample ID: 320-78155-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0028		0.00069	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.20		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.010		0.00069	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	26		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1304 — Lab Sample ID: 320-78155-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	39.8370		0.3041	0.3041	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1305 — Lab Sample ID: 320-78155-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0013		0.00096	0.00014	ug/m3 (Air)	1		6020	Total/NA
Copper	0.031		0.0019	0.00014	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0043		0.00096	0.00013	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	20		0.40	0.40	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1305 — Lab Sample ID: 320-78155-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	32.0372		0.3995	0.3995	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1306 — Lab Sample ID: 320-78155-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0027		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.16		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0093		0.00070	0.000099	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	31		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1306 — Lab Sample ID: 320-78155-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	27.1708		0.3388	0.3388	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1307 — Lab Sample ID: 320-78155-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0065		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.022		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0043		0.00068	0.000095	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	23		0.28	0.28	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1307 — Lab Sample ID: 320-78155-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	33.5939		0.2833	0.2833	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Gilbane Federal
Job ID: 320-78155-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM070821-1304
Lab Sample ID: 320-78155-1
Date Collected: 08/25/21 07:50
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0028		0.00069	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:49	1
Copper	0.20		0.0014	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:49	1
Manganese	0.010		0.00069	0.000096	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	26		0.29	0.29	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP070821-1304
Lab Sample ID: 320-78155-2
Date Collected: 08/25/21 07:50
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	39.8370		0.3041	0.3041	ug/m3 (Air)			08/30/21 09:20	1

Client Sample ID: GILBANEPM070821-1305
Lab Sample ID: 320-78155-3
Date Collected: 08/25/21 07:19
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0013		0.00096	0.00014	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:52	1
Copper	0.031		0.0019	0.00014	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:52	1
Manganese	0.0043		0.00096	0.00013	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	20		0.40	0.40	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP070821-1305
Lab Sample ID: 320-78155-4
Date Collected: 08/25/21 07:19
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	32.0372		0.3995	0.3995	ug/m3 (Air)			08/30/21 09:20	1

Client Sample ID: GILBANEPM070821-1306
Lab Sample ID: 320-78155-5
Date Collected: 08/26/21 07:35
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0027		0.00070	0.00011	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:55	1
Copper	0.16		0.0014	0.00011	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:55	1
Manganese	0.0093		0.00070	0.000099	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:55	1

Client Sample Results

Client: Gilbane Federal
Job ID: 320-78155-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM070821-1306
Lab Sample ID: 320-78155-5
Date Collected: 08/26/21 07:35
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	31		0.29	0.29	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP070821-1306
Lab Sample ID: 320-78155-6
Date Collected: 08/26/21 07:35
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	27.1708		0.3388	0.3388	ug/m3 (Air)			08/30/21 09:20	1

Client Sample ID: GILBANEPM070821-1307
Lab Sample ID: 320-78155-7
Date Collected: 08/26/21 07:13
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0065		0.00068	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:58	1
Copper	0.022		0.0014	0.00010	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:58	1
Manganese	0.0043		0.00068	0.000095	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	23		0.28	0.28	ug/m3			08/30/21 09:20	1

Client Sample ID: GILBANETSP070821-1307
Lab Sample ID: 320-78155-8
Date Collected: 08/26/21 07:13
Matrix: Air
Date Received: 08/27/21 09:35
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	33.5939		0.2833	0.2833	ug/m3 (Air)			08/30/21 09:20	1

QC Sample Results

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-521644/1-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		09/01/21 09:25	09/01/21 12:13	1

Lab Sample ID: LCS 320-521644/2-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.240	0.229		ug/m3 (Air)		96	86 - 111
Copper	0.240	0.244		ug/m3 (Air)		102	85 - 110
Manganese	0.240	0.242		ug/m3 (Air)		101	88 - 110

Lab Sample ID: LCSD 320-521644/3-B
Matrix: Air
Analysis Batch: 521818

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 521698

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.240	0.232		ug/m3 (Air)		97	86 - 111	1	15
Copper	0.240	0.240		ug/m3 (Air)		100	85 - 110	2	15
Manganese	0.240	0.239		ug/m3 (Air)		99	88 - 110	1	15

QC Association Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Metals

Pre Prep Batch: 521644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-1	GILBANEPM070821-1304	Total/NA	Air	Filter to Air	
320-78155-3	GILBANEPM070821-1305	Total/NA	Air	Filter to Air	
320-78155-5	GILBANEPM070821-1306	Total/NA	Air	Filter to Air	
320-78155-7	GILBANEPM070821-1307	Total/NA	Air	Filter to Air	
MB 320-521644/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 521698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-1	GILBANEPM070821-1304	Total/NA	Air	3050B	521644
320-78155-3	GILBANEPM070821-1305	Total/NA	Air	3050B	521644
320-78155-5	GILBANEPM070821-1306	Total/NA	Air	3050B	521644
320-78155-7	GILBANEPM070821-1307	Total/NA	Air	3050B	521644
MB 320-521644/1-B	Method Blank	Total/NA	Air	3050B	521644
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	3050B	521644
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	521644

Analysis Batch: 521818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-1	GILBANEPM070821-1304	Total/NA	Air	6020	521698
320-78155-3	GILBANEPM070821-1305	Total/NA	Air	6020	521698
320-78155-5	GILBANEPM070821-1306	Total/NA	Air	6020	521698
320-78155-7	GILBANEPM070821-1307	Total/NA	Air	6020	521698
MB 320-521644/1-B	Method Blank	Total/NA	Air	6020	521698
LCS 320-521644/2-B	Lab Control Sample	Total/NA	Air	6020	521698
LCSD 320-521644/3-B	Lab Control Sample Dup	Total/NA	Air	6020	521698

General Chemistry

Pre Prep Batch: 521378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-2	GILBANETSP070821-1304	Total/NA	Air	Filter to Air	
320-78155-4	GILBANETSP070821-1305	Total/NA	Air	Filter to Air	
320-78155-6	GILBANETSP070821-1306	Total/NA	Air	Filter to Air	
320-78155-8	GILBANETSP070821-1307	Total/NA	Air	Filter to Air	

Analysis Batch: 521738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-1	GILBANEPM070821-1304	Total/NA	Air	PM10	
320-78155-3	GILBANEPM070821-1305	Total/NA	Air	PM10	
320-78155-5	GILBANEPM070821-1306	Total/NA	Air	PM10	
320-78155-7	GILBANEPM070821-1307	Total/NA	Air	PM10	

Analysis Batch: 521754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78155-2	GILBANETSP070821-1304	Total/NA	Air	40CFR50 App B	521378
320-78155-4	GILBANETSP070821-1305	Total/NA	Air	40CFR50 App B	521378
320-78155-6	GILBANETSP070821-1306	Total/NA	Air	40CFR50 App B	521378
320-78155-8	GILBANETSP070821-1307	Total/NA	Air	40CFR50 App B	521378

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Client Sample ID: GILBANEPM070821-1304
Lab Sample ID: 320-78155-1
Date Collected: 08/25/21 07:50
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:49	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0458 g	521738	08/30/21 09:20	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1304
Lab Sample ID: 320-78155-2
Date Collected: 08/25/21 07:50
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1305
Lab Sample ID: 320-78155-3
Date Collected: 08/25/21 07:19
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:52	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0247 g	521738	08/30/21 09:20	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1305
Lab Sample ID: 320-78155-4
Date Collected: 08/25/21 07:19
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1306
Lab Sample ID: 320-78155-5
Date Collected: 08/26/21 07:35
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:55	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0533 g	521738	08/30/21 09:20	DPM	TAL SAC

Lab Chronicle

Client: Gilbane Federal
Job ID: 320-78155-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANETSP070821-1306
Lab Sample ID: 320-78155-6
Date Collected: 08/26/21 07:35
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1307
Lab Sample ID: 320-78155-7
Date Collected: 08/26/21 07:13
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					521644	09/01/21 08:47	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	521698	09/01/21 09:25	NIM	TAL SAC
Total/NA	Analysis	6020		1			521818	09/01/21 12:58	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0400 g	521738	08/30/21 09:20	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1307
Lab Sample ID: 320-78155-8
Date Collected: 08/26/21 07:13
Matrix: Air
Date Received: 08/27/21 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			521754	08/30/21 09:20	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					521378	08/31/21 11:44	DPM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Gilbane Federal
Job ID: 320-78155-1
Project/Site: Hunters Point, Parcel E, Phase 2

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	TAL SAC
PM10	Particulate Matter	40CFR50J	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
Filter to Air	Filter to Air volume ratio	None	TAL SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78155-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-78155-1	GILBANEPM070821-1304	Air	08/25/21 07:50	08/27/21 09:35
320-78155-2	GILBANETSP070821-1304	Air	08/25/21 07:50	08/27/21 09:35
320-78155-3	GILBANEPM070821-1305	Air	08/25/21 07:19	08/27/21 09:35
320-78155-4	GILBANETSP070821-1305	Air	08/25/21 07:19	08/27/21 09:35
320-78155-5	GILBANEPM070821-1306	Air	08/26/21 07:35	08/27/21 09:35
320-78155-6	GILBANETSP070821-1306	Air	08/26/21 07:35	08/27/21 09:35
320-78155-7	GILBANEPM070821-1307	Air	08/26/21 07:13	08/27/21 09:35
320-78155-8	GILBANETSP070821-1307	Air	08/26/21 07:13	08/27/21 09:35

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC # KT082621AIR

Gilbane

Project Name: Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: Eurofins Environment Testing TestAmerica-Sacramento, West Sacramento, CA	Event: Parcel E Phase 2 Air Monitoring August 2021
Project Number: J310000400	[redacted]	
WBS Code: J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-78155 Chain of Custody

Analytical Test Method

Event: Parcel E Phase 2 Air Monitoring August 2021

	Sample ID	Matrix	Date	Time	Samp Init.	CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn Cu	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GILBANEPM070821-1304	A	08/25/2021	0750	KT	X		X	AMSE1	N1	0.00	0.00	1	VOLUME: 1741.07
2	GILBANETSP070821-1304	A	08/25/2021	0750	KT		X		AMSE1	N1	0.00	0.00	1	VOLUME: 1644.20
3	GILBANEPM070821-1305	A	08/25/2021	0719	KT	X		X	AMSE2	N1	0.00	0.00	1	VOLUME: 1252.17
4	GILBANETSP070821-1305	A	08/25/2021	0719	KT		X		AMSE2	N1	0.00	0.00	1	VOLUME: 1251.67
5	GILBANEPM070821-1306	A	08/26/2021	0735	KT	X		X	AMSE1	N1	0.00	0.00	1	VOLUME: 1704.75
6	GILBANETSP070821-1306	A	08/26/2021	0735	KT		X		AMSE1	N1	0.00	0.00	1	VOLUME: 1475.85
7	GILBANEPM070821-1307	A	08/26/2021	0713	KT	X		X	AMSE2	N1	0.00	0.00	1	VOLUME: 1772.96
8	GILBANETSP070821-1307	A	08/26/2021	0713	KT		X		AMSE2	N1	0.00	0.00	1	VOLUME: 1765.20
9														
10														

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	8/26/21	1500	FedEx	8/26/21	1500
			[redacted] Eurofins	8/27/21	935

Shipping Date / Carrier / Airbill Number

Shipping Date: 8/26/2021/FedEx 7746 4535 4480

Received by Laboratory: *(Signature, Date, Time)* **& condition**

20.0°C

Login Sample Receipt Checklist

Client: Gilbane Federal

Job Number: 320-78155-1

Login Number: 78155

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: [redacted]

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	AMBIENT TEMP
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-78324-1
Client Project/Site: Hunters Point, Parcel E, Phase 2

For:
Gilbane Federal
2355 E. Camelback Road
Suite 850
Phoenix, Arizona 85016

[redacted]

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Job ID: 320-78324-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-78324-1

Comments
No additional comments.

Receipt
The samples were received on 9/1/2021 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 17.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Client Sample ID: GILBANEPM070821-1308 — Lab Sample ID: 320-78324-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0039		0.0023	0.00034	ug/m3 (Air)	1		6020	Total/NA
Copper	0.14		0.0046	0.00034	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.19		0.0023	0.00032	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	34		0.95	0.95	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1308 — Lab Sample ID: 320-78324-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.1079		0.8691	0.8691	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1309 — Lab Sample ID: 320-78324-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0024		0.0021	0.00031	ug/m3 (Air)	1		6020	Total/NA
Copper	0.033		0.0042	0.00031	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0071		0.0021	0.00029	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	26		0.87	0.87	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1309 — Lab Sample ID: 320-78324-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.9343		0.8683	0.8683	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1310 — Lab Sample ID: 320-78324-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0048		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.15		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.013		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	44		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1310 — Lab Sample ID: 320-78324-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.4411		0.3029	0.3029	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM070821-1311 — Lab Sample ID: 320-78324-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0030		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.73		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0086		0.00068	0.000095	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	40		0.28	0.28	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP070821-1311 — Lab Sample ID: 320-78324-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.9316		0.2820	0.2820	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Gilbane Federal
Job ID: 320-78324-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM070821-1308
Lab Sample ID: 320-78324-1
Date Collected: 08/26/21 14:46
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0039		0.0023	0.00034	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:51	1
Copper	0.14		0.0046	0.00034	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:51	1
Manganese	0.19		0.0023	0.00032	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	34		0.95	0.95	ug/m3			09/02/21 08:30	1

Client Sample ID: GILBANETSP070821-1308
Lab Sample ID: 320-78324-2
Date Collected: 08/26/21 14:46
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.1079		0.8691	0.8691	ug/m3 (Air)			09/02/21 08:30	1

Client Sample ID: GILBANEPM070821-1309
Lab Sample ID: 320-78324-3
Date Collected: 08/26/21 14:58
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0024		0.0021	0.00031	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:01	1
Copper	0.033		0.0042	0.00031	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:01	1
Manganese	0.0071		0.0021	0.00029	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	26		0.87	0.87	ug/m3			09/02/21 08:30	1

Client Sample ID: GILBANETSP070821-1309
Lab Sample ID: 320-78324-4
Date Collected: 08/26/21 14:58
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.9343		0.8683	0.8683	ug/m3 (Air)			09/02/21 08:30	1

Client Sample ID: GILBANEPM070821-1310
Lab Sample ID: 320-78324-5
Date Collected: 08/31/21 07:14
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0048		0.00070	0.00011	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:04	1
Copper	0.15		0.0014	0.00011	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:04	1
Manganese	0.013		0.00070	0.000098	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:04	1

Client Sample ID: GILBANEPM070821-1310
Lab Sample ID: 320-78324-5
Date Collected: 08/31/21 07:14
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	44		0.29	0.29	ug/m3			09/02/21 08:30	1

Client Sample ID: GILBANETSP070821-1310
Lab Sample ID: 320-78324-6
Date Collected: 08/31/21 07:14
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.4411		0.3029	0.3029	ug/m3 (Air)			09/02/21 08:30	1

Client Sample ID: GILBANEPM070821-1311
Lab Sample ID: 320-78324-7
Date Collected: 08/31/21 07:04
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0030		0.00068	0.00010	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:07	1
Copper	0.73		0.0014	0.00010	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:07	1
Manganese	0.0086		0.00068	0.000095	ug/m3 (Air)		09/08/21 05:30	09/08/21 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	40		0.28	0.28	ug/m3			09/02/21 08:30	1

Client Sample ID: GILBANETSP070821-1311
Lab Sample ID: 320-78324-8
Date Collected: 08/31/21 07:04
Matrix: Air
Date Received: 09/01/21 10:05
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.9316		0.2820	0.2820	ug/m3 (Air)			09/02/21 08:30	1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-523118/1-B
Matrix: Air
Analysis Batch: 523419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523120

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:42	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:42	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		09/08/21 05:30	09/08/21 13:42	1

Lab Sample ID: LCS 320-523118/2-B
Matrix: Air
Analysis Batch: 523419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 523120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.240	0.238		ug/m3 (Air)		99	86 - 111
Copper	0.240	0.256		ug/m3 (Air)		107	85 - 110
Manganese	0.240	0.256		ug/m3 (Air)		107	88 - 110

Lab Sample ID: LCSD 320-523118/3-B
Matrix: Air
Analysis Batch: 523419

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 523120

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.240	0.247		ug/m3 (Air)		103	86 - 111	4	15
Copper	0.240	0.254		ug/m3 (Air)		106	85 - 110	1	15
Manganese	0.240	0.251		ug/m3 (Air)		105	88 - 110	2	15

QC Association Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Metals

Pre Prep Batch: 523118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-1	GILBANEPM070821-1308	Total/NA	Air	Filter to Air	
320-78324-3	GILBANEPM070821-1309	Total/NA	Air	Filter to Air	
320-78324-5	GILBANEPM070821-1310	Total/NA	Air	Filter to Air	
320-78324-7	GILBANEPM070821-1311	Total/NA	Air	Filter to Air	
MB 320-523118/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-523118/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-523118/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 523120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-1	GILBANEPM070821-1308	Total/NA	Air	3050B	523118
320-78324-3	GILBANEPM070821-1309	Total/NA	Air	3050B	523118
320-78324-5	GILBANEPM070821-1310	Total/NA	Air	3050B	523118
320-78324-7	GILBANEPM070821-1311	Total/NA	Air	3050B	523118
MB 320-523118/1-B	Method Blank	Total/NA	Air	3050B	523118
LCS 320-523118/2-B	Lab Control Sample	Total/NA	Air	3050B	523118
LCSD 320-523118/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	523118

Analysis Batch: 523419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-1	GILBANEPM070821-1308	Total/NA	Air	6020	523120
320-78324-3	GILBANEPM070821-1309	Total/NA	Air	6020	523120
320-78324-5	GILBANEPM070821-1310	Total/NA	Air	6020	523120
320-78324-7	GILBANEPM070821-1311	Total/NA	Air	6020	523120
MB 320-523118/1-B	Method Blank	Total/NA	Air	6020	523120
LCS 320-523118/2-B	Lab Control Sample	Total/NA	Air	6020	523120
LCSD 320-523118/3-B	Lab Control Sample Dup	Total/NA	Air	6020	523120

General Chemistry

Pre Prep Batch: 523626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-2	GILBANETSP070821-1308	Total/NA	Air	Filter to Air	
320-78324-4	GILBANETSP070821-1309	Total/NA	Air	Filter to Air	
320-78324-6	GILBANETSP070821-1310	Total/NA	Air	Filter to Air	
320-78324-8	GILBANETSP070821-1311	Total/NA	Air	Filter to Air	

Analysis Batch: 523650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-1	GILBANEPM070821-1308	Total/NA	Air	PM10	
320-78324-3	GILBANEPM070821-1309	Total/NA	Air	PM10	
320-78324-5	GILBANEPM070821-1310	Total/NA	Air	PM10	
320-78324-7	GILBANEPM070821-1311	Total/NA	Air	PM10	

Analysis Batch: 523651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78324-2	GILBANETSP070821-1308	Total/NA	Air	40CFR50 App B	523626
320-78324-4	GILBANETSP070821-1309	Total/NA	Air	40CFR50 App B	523626
320-78324-6	GILBANETSP070821-1310	Total/NA	Air	40CFR50 App B	523626
320-78324-8	GILBANETSP070821-1311	Total/NA	Air	40CFR50 App B	523626

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Client Sample ID: GILBANEPM070821-1308
Lab Sample ID: 320-78324-1
Date Collected: 08/26/21 14:46
Matrix: Air
Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					523118	09/08/21 05:00	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	523120	09/08/21 05:30	NIM	TAL SAC
Total/NA	Analysis	6020		1			523419	09/08/21 13:51	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0178 g	523650	09/02/21 08:30	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1308
Lab Sample ID: 320-78324-2
Date Collected: 08/26/21 14:46
Matrix: Air
Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			523651	09/02/21 08:30	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					523626	09/09/21 15:10	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1309
Lab Sample ID: 320-78324-3
Date Collected: 08/26/21 14:58
Matrix: Air
Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					523118	09/08/21 05:00	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	523120	09/08/21 05:30	NIM	TAL SAC
Total/NA	Analysis	6020		1			523419	09/08/21 14:01	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0150 g	523650	09/02/21 08:30	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1309
Lab Sample ID: 320-78324-4
Date Collected: 08/26/21 14:58
Matrix: Air
Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			523651	09/02/21 08:30	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					523626	09/09/21 15:10	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1310
Lab Sample ID: 320-78324-5
Date Collected: 08/31/21 07:14
Matrix: Air
Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					523118	09/08/21 05:00	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	523120	09/08/21 05:30	NIM	TAL SAC
Total/NA	Analysis	6020		1			523419	09/08/21 14:04	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0753 g	523650	09/02/21 08:30	DPM	TAL SAC

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Client Sample ID: GILBANETSP070821-1310

Lab Sample ID: 320-78324-6

Date Collected: 08/31/21 07:14

Matrix: Air

Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			523651	09/02/21 08:30	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					523626	09/09/21 15:10	DPM	TAL SAC

Client Sample ID: GILBANEPM070821-1311

Lab Sample ID: 320-78324-7

Date Collected: 08/31/21 07:04

Matrix: Air

Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	Filter to Air					523118	09/08/21 05:00	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	523120	09/08/21 05:30	NIM	TAL SAC
Total/NA	Analysis	6020		1			523419	09/08/21 14:07	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0706 g	523650	09/02/21 08:30	DPM	TAL SAC

Client Sample ID: GILBANETSP070821-1311

Lab Sample ID: 320-78324-8

Date Collected: 08/31/21 07:04

Matrix: Air

Date Received: 09/01/21 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	40CFR50 App B		1			523651	09/02/21 08:30	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					523626	09/09/21 15:10	DPM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Gilbane Federal
Job ID: 320-78324-1
Project/Site: Hunters Point, Parcel E, Phase 2

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2468	01-20-24
Oregon	NELAP	4040	01-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
40CFR50 App B		Air	Total Suspended Particulates
PM10		Air	Particulate Matter as PM 10

Method Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	TAL SAC
PM10	Particulate Matter	40CFR50J	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
Filter to Air	Filter to Air volume ratio	None	TAL SAC

Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-78324-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-78324-1	GILBANEPM070821-1308	Air	08/26/21 14:46	09/01/21 10:05
320-78324-2	GILBANETSP070821-1308	Air	08/26/21 14:46	09/01/21 10:05
320-78324-3	GILBANEPM070821-1309	Air	08/26/21 14:58	09/01/21 10:05
320-78324-4	GILBANETSP070821-1309	Air	08/26/21 14:58	09/01/21 10:05
320-78324-5	GILBANEPM070821-1310	Air	08/31/21 07:14	09/01/21 10:05
320-78324-6	GILBANETSP070821-1310	Air	08/31/21 07:14	09/01/21 10:05
320-78324-7	GILBANEPM070821-1311	Air	08/31/21 07:04	09/01/21 10:05
320-78324-8	GILBANETSP070821-1311	Air	08/31/21 07:04	09/01/21 10:05

CHAIN-OF-CUSTODY RECORD

Gilbane Federal
[redacted]
1655 Grant Street, Suite 1200, Concord, CA 94520
[redacted]

COC # KT083121AIR

Gilbane

Project Name: Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: Eurofins Environment Testing TestAmerica-Sacramento, West Sacramento, CA	Event: Parcel E Phase 2 Air Monitoring August 2021
Project Number: J310000400	POC: [redacted]	
WBS Code: J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-78324 Chain of Custody

						Analytical Test Method															
						CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn Cu													
	Event: Parcel E Phase 2 Air Monitoring August 2021					1	1	1													
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	GILBANEPM070821-1308	A	08/26/2021	1446	KT	X		X								AMSE1	N2	0.00	0.00	1	VOLUME: 525.99
2	GILBANETSP070821-1308	A	08/26/2021	1446	KT		X									AMSE1	N2	0.00	0.00	1	VOLUME: 575.30
3	GILBANEPM070821-1309	A	08/26/2021	1458	KT	X		X								AMSE2	N2	0.00	0.00	1	VOLUME: 576.69
4	GILBANETSP070821-1309	A	08/26/2021	1458	KT		X									AMSE2	N2	0.00	0.00	1	VOLUME: 575.86
5	GILBANEPM070821-1310	A	08/31/2021	0714	KT	X		X								AMSE1	N1	0.00	0.00	1	VOLUME: 1713.88
6	GILBANETSP070821-1310	A	08/31/2021	0714	KT		X									AMSE1	N1	0.00	0.00	1	VOLUME: 1650.51
7	GILBANEPM070821-1311	A	08/31/2021	0704	KT	X		X								AMSE2	N1	0.00	0.00	1	VOLUME: 1772.72
8	GILBANETSP070821-1311	A	08/31/2021	0704	KT		X									AMSE2	N1	0.00	0.00	1	VOLUME: 1773.21
9																					
10																					

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[redacted]	8/31/21	1500	FedEx	8/31/21	1500
			[redacted] ETASAC	9-1-21	1005

Shipping Date / Carrier / Airbill Number

Shipping Date: 8/31/2021 / FedEx 7746 8586 5760

Received by Laboratory: *(Signature, Date, Time)* **& condition**

Temp = 17.5°C

Login Sample Receipt Checklist

Client: Gilbane Federal

Job Number: 320-78324-1

Login Number: 78324

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: [redacted]

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	Ambient Temp
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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