Naval Facilities Engineering 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

February 1st, 2020 through February 28th, 2020

Approved for public release; distribution is unlimited

DCN: GLBN-0005-4332-0037

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Prepared for:

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Naval Facilities Engineering Command Southwest
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Contract Number: N62473-17-D-0005; Task Order No. N6247317F4332
DCN: GLBN-0005-4332-0037

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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*

EPA.....*United States Environmental Protection Agency*

fiber/cm3.....*fiber per cubic centimeter*

Gilbane.....*Gilbane Federal*

HPNS.....*Hunters Point Naval Shipyard*

L/min.....*liters per minute*

mg/m3.....milligrams per cubic meter

Navy.....*U.S. Department of the Navy*

NIOSH.....*National Institute for Occupational Safety and Health*

PDR.....personal data-logging real-time

PEL.....*permissible exposure limit*

PM10.....*particulate matter less than 10 microns in diameter*

TSP.....*total suspended particulates*

TWA.....*time-weighted average*

µg/m3.....*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, 2019). The 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 February 1st, 2020 through February 28th, 2020 and compares the results with the established action levels presented in the DMCP (Appendix E of the RAWP [Gilbane, 2019]).

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. Atmospheric parameters were checked daily at www.dateandtime.com (see Attachment 1). Monitoring stations remained stationary while sampling was conducted. Each monitoring station included four different monitoring systems:

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

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.

3.2 PM10

Air samples were sampled in accordance with the U.S. Environmental Protection Agency (EPA) reference sampling method for PM10, described in 40 CFR 50, Subpart J. 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 PM10 collected.

3.3 TSP, Copper, Lead, and Manganese

TSP samples were collected with a high-volume (39 to 60 cubic feet per minute [cfm]) air sampler in accordance with EPA's reference sampling method for TSP, described in Title 40 Code of Federal Regulations (CFR), Part 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. Once the filter weight was determined, the sample was analyzed for copper and manganese in accordance with one of the IO-3 methods identified in 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.

3.4 Radionuclides of Concern

Radiological air samples were collected with a LV-1 low-volume air sampler. Air filters are 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, 2016).

The radiological air sample 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 air monitoring 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, accuracy, calibration, and quality assurance.

4.0 Air Monitoring Action Levels

Analytical data from air monitoring 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, 2019].

Table 4-1: Air Monitoring Threshold Criteria

Test Parameter	Threshold Criterion	Threshold Criteria Reference
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL
PM10	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] = Cal/OSHA PEL for particulates not otherwise regulated (respirator) used for PM10.
µg/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
TSP = total suspended particulates

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 upwind Station 1 in Parcel D-1 and downwind Station 2 in Parcel E from February 3rd to February 6th, 2020 and February 18th to February 19th, 2020, during which Gilbane was drilling. Data was also collected from upwind Station 1 in Parcel D-1 and downwind Station 2 in Parcel E on February 20th, 2020 and from February 24th to February 27th, 2020, during which Gilbane was conducting earth-moving activities. Samples were not collected during periods of site inactivity, rain events, and/or while site work was limited to non-earth moving tasks. Air samples were not run on February 10th through February 13th, 2020 since there were no earth-moving tasks during that time. Due to the Presidents Day Holiday, there was no site activity on February 17th.

Construction and remediation activities conducted from February 1st through February 28th, 2020, did not result in the exceedance of the established threshold criteria, as described in detail below.

Asbestos results from February 1st through February 28th, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 2.

PM10 results from February 1st through February 28th, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 3.

TSP, lead, manganese, and copper results from February 1st through February 28th, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 4.

Radiological air sampling results from February 1st through February 28th, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 5.

Analytical laboratory reports are included as Attachment 6.

6.0 References

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, 2014. Final Remedial Action Work Plan, Parcel E Remedial Action, Phase 2, Hunters Point Naval Shipyard, San Francisco, California. October

FIGURES

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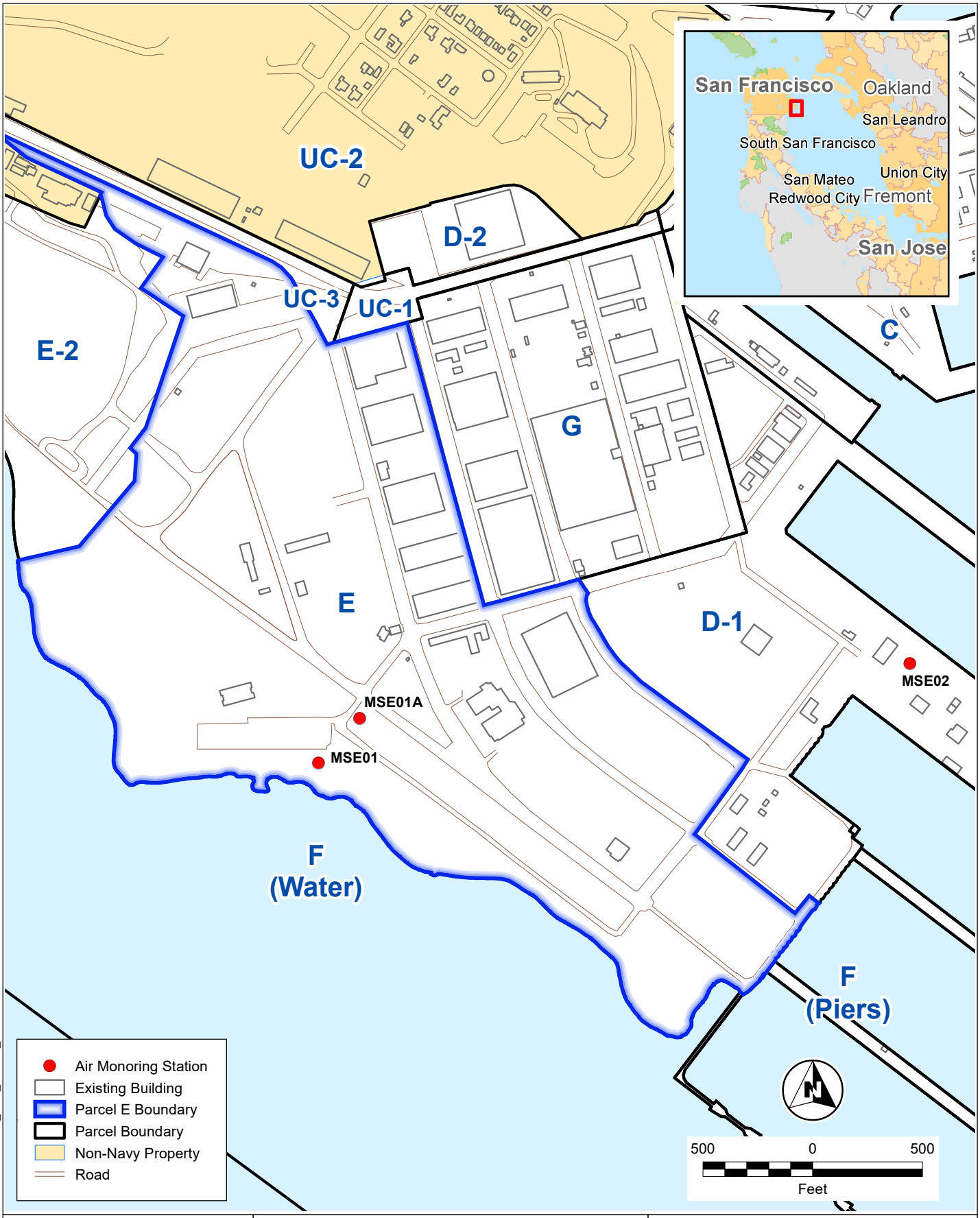

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Gilbane

Parcel E
Hunters Point Naval Shipyard
San Franscisco, California

Figure 2-1
Air Monitoring Stations

ATTACHMENTS

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ATTACHMENT 1

AMBIENT PRESSURE AND TEMPERATURE MONITORING RESULTS

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Attachment 1
Ambient Pressure and Temperature Monitoring Result
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)
2/3/2020	30.24	50.0
2/4/2020	30.31	50.0
2/5/2020	30.25	52.0
2/6/2020	30.22	48.0
2/18/2020	30.09	55.0
2/19/2020	30.15	54.0
2/20/2020	30.18	58.0
2/24/2020	30.34	55.0
2/25/2020	30.31	62.0
2/26/2020	30.32	60.0
2/27/2020	30.27	65.0

Note:

°F = degree Fareheit

in Hg = inches of mercury

ATTACHMENT 2

ASBESTOS MONITORING RESULTS

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Attachment 2
Asbestos Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

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 (m^3)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSE01A-020320	2/3/2020	1A	441	882	18.5	0.010	No
MSE02-020320	2/3/2020	2	430	860	13.5	0.008	No
MSE01A-020420	2/4/2020	1A	394	788	11.5	0.007	No
MSE02-020420	2/4/2020	2	373	746	20.0	0.013	No
MSE01A-020520	2/5/2020	1A	365	730	12.5	0.008	No
MSE02-020520	2/5/2020	2	361	722	10.5	0.007	No
MSE01A-020620	2/6/2020	1A	396	792	8.5	0.005	No
MSE02-020620	2/6/2020	2	391	782	11.0	0.007	No
MSE01A-021820	2/18/2020	1A	392	784	13.5	0.008	No
MSE02-021820	2/18/2020	2	428	856	14.5	0.008	No
MSE01A-021920	2/19/2020	1A	444	888	8.0	0.004	No
MSE02-021920	2/19/2020	2	426	852	12.5	0.007	No
MSE01A-022020	2/20/2020	1A	423	846	11.0	0.006	No
MSE02-022020	2/20/2020	2	411	822	10.0	0.006	No
MSE01A-022420	2/24/2020	1A	397	794	10.5	0.006	No
MSE02-022420	2/24/2020	2	386	772	11.5	0.007	No
MSE01A-022520	2/25/2020	1A	485	970	8.5	0.004	No
MSE02-022520	2/25/2020	2	477	954	10.0	0.005	No
MSE01A-022620	2/26/2020	1A	465	930	11.5	0.006	No
MSE02-022620	2/26/2020	2	447	894	10.5	0.006	No
MSE01A-022720	2/27/2020	1A	419	838	12.0	0.007	No
MSE02-022720	2/27/2020	2	413	826	12.0	0.007	No

Notes:
Samples analyzed by A&B Labs
Sample locations are shown on Figure 2-1
min = minutes
m^3 = cubic meters
fibers/cm^3 = fibers per cubic centimeter

ATTACHMENT 3

PM10 MONITORING RESULTS

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Attachment 3
Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Sample, Date and Station Information			Sampler Run Information	PM10s		
Sample ID	Monitoring Station	Sample Start Date[1]	Total Air Volume Monitored (m^3)	Total Mass (mg)	Concen-tration in Air (mg/m^3)	Exceedance (Yes/No)
Q0388650-MSE01A	1A	2/3/2020	800.21	ND	<0.0012	No
Q0388652-MSE02	2	2/3/2020	1627.43	1.4	0.00086	No
Q0388653-MSE01A	1A	2/4/2020	1651.18	27	0.016	No
Q0374091-MSE02	2	2/4/2020	1618.15	8.9	0.0055	No
Q0374092-MSE01A	1A	02/05/20	1624.34	20	0.012	No
Q0374093-MSE02	2	2/5/20	1609.14	13	0.0082	No
Q0374094-MSE01A	1A	2/6/20	447.87	2.2	0.0049	No
Q0374095-MSE02	2	2/6/20	440.47	3.7	0.0084	No
Q0374097-MSE01A	1A	2/18/20	1583.55	29	0.018	No
Q0374096-MSE02	2	2/18/20	583.27	11	0.019	No
Q0374098-MSE01A	1A	2/19/20	1617.48	35	0.021	No
Q0374099-MSE02	2	2/19/20	1595.53	18	0.011	No
Q0374085-MSE01A	1A	2/20/20	483.05	9.1	0.019	No
Q0374100-MSE02	2	2/20/20	473.76	11	0.023	No
Q0374086-MSE01A	1A	2/24/20	1589.64	29	0.018	No
Q0374087-MSE02	2	2/24/20	1579.20	17	0.011	No
Q0374088-MSE01A	1A	2/25/20	1573.93	19	0.012	No
Q0374089-MSE02	2	2/25/20	1673.74	16	0.0093	No
Q0374068-MSE01A	1A	2/26/20	1616.98	45	0.028	No
Q0374069-MSE02	2	2/26/20	1607.48	31	0.020	No
Q0374066-MSE01A	1A	2/27/20	482.66	3.0	0.0062	No
Q0374067-MSE02	2	2/27/20	473.17	ND	<0.0021	No

Notes:

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

Samples analyzed by ALS Environmental

Sample locations are shown on Figure 2-1

min = minutes

m^3 = cubic meters

mg = milligrams

mg/m^3 = milligrams per cubic meter

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

ATTACHMENT 4

TSP, COPPER, LEAD, AND MANGANESE MONITORING RESULTS

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Attachment 4
Total Suspended Particulates, Copper, Lead, and Manganese Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Sample, Date and Station Information			Run Information	Total Suspended Particulates			Copper			Lead			Manganese		
Sample ID	Monitoring Station	Sample Start Date[1]	Total Air Volume Monitored (m^3)	Total Mass (mg)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Result (ug)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Result (ug)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Result (ug)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
9764196-MSE01A	1A	2/3/20	1720.96	45	0.026	No	460	0.00027	No	ND	<0.000015	No	ND	<0.000015	No
9764195-MSE02	2	2/3/20	1650.22	42	0.025	No	28	0.000017	No	ND	<0.000015	No	ND	<0.000015	No
9764197-MSE01A	1A	2/4/20	1744.05	27	0.016	No	2,900	0.0016	No	ND	<0.000014	No	29	0.000017	No
9764198-MSE02	2	2/4/20	1648.65	22	0.014	No	430	0.00026	No	ND	<0.000015	No	ND	<0.000015	No
9764199-MSE01A	1A	2/5/20	1719.80	40	0.023	No	3,700	0.0022	No	ND	<0.000015	No	ND	<0.000015	No
9764200-MSE02	2	2/5/20	1638.61	27	0.016	No	550	0.00033	No	ND	<0.000015	No	ND	<0.000015	No
9524709-MSE01A	1A	2/6/20	476.32	3.2	0.0067	No	670	0.0014	No	ND	<0.000052	No	ND	<0.000052	No
9524710-MSE02	2	2/6/20	446.40	8.1	0.018	No	200	0.00044	No	ND	<0.000056	No	ND	<0.000056	No
9524712-MSE01A	1A	2/18/20	1667.85	28	0.016	No	1,600	0.00096	No	ND	<0.000015	No	ND	<0.000015	No
9524711-MSE02	2	2/18/20	1661.60	23	0.014	No	230	0.00014	No	ND	<0.000015	No	ND	<0.000015	No
9524713-MSE01A	1A	2/19/20	1707.28	62	0.036	No	2,400	0.0014	No	ND	<0.000015	No	ND	<0.000015	No
9524714-MSE02	2	2/19/20	1622.64	44	0.027	No	370	0.00023	No	ND	<0.000015	No	ND	<0.000015	No
9524715-MSE01A	1A	2/20/20	511.53	18	0.034	No	370	0.00073	No	ND	<0.000049	No	ND	<0.000049	No
9524716-MSE02	2	2/20/20	477.34	6.9	0.014	No	190	0.00040	No	ND	<0.000052	No	ND	<0.000052	No
9524717-MSE01A	1A	2/24/20	1676.53	70	0.041	No	2,300	0.0014	No	55	0.000033	No	38	0.000023	No
9524718-MSE02	2	2/24/20	1606.84	52	0.032	No	540	0.00034	No	48	0.000030	No	ND	<0.000016	No
9524719-MSE01A	1A	2/25/20	1768.50	75	0.042	No	3,400	0.0019	No	ND	<0.000014	No	53	0.000030	No
9524720-MSE02	2	2/25/20	1700.30	59	0.035	No	820	0.00048	No	ND	<0.000015	No	45	0.000026	No
9764171-MSE01A	1A	2/26/20	1719.91	87	0.050	No	2,700	0.0016	No	31	0.000018	No	57	0.000033	No
9764172-MSE02	2	2/26/20	1636.23	63	0.039	No	650	0.00040	No	ND	<0.000015	No	42	0.000026	No
9764169-MSE01A	1A	2/27/20	509.20	19	0.037	No	820 J-	0.0016 J-	No	ND	<0.000049	No	ND	<0.000049	No
9764170-MSE02	2	2/27/20	482.61	8.8	0.018	No	250	0.00051	No	ND	<0.000052	No	ND	<0.000052	No

Notes:
[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.
Samples analyzed by ALS Environmental
Sample locations are shown on Figure 2-1
mg = milligrams
mg/m^3 = milligrams per cubic meter
< = below detection limit
J - = estimated value with a low bias
m^3 = cubic meters
ug = micrograms

ATTACHMENT 5

RADIOLOGICAL AIR MONITORING RESULTS

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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 < MDC	Value < 0.1 x Effluent Conc
N62473-17-D-0005 / F4332	Parcel E RA HPNS, SF, CA	J310000400	Radionuclide	Ra-226	Sr-90	between February 1, 2020	< 72 hr decay time	Value > 0.1 x Effluent Conc
Information effective as of: 3/5/2020			Effluent Conc (µCi/ml)	9.E-13	6.E-12	and February 28, 2020	Data reviewed	Value > Effluent Conc

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 Alpha	Gross Activity Beta	Net dpm Alpha	Net dpm Beta	Activity (µCi/ml) Alpha	Activity (µCi/ml) Beta	Effluent Conc (%) Alpha	Effluent Conc (%) Beta	Count Tech	Data Reviewer
AS-0023	Perimeter	MSE01A	PE03	60	2/3/20 7:30	2/3/20 15:22	472	2.8E+07	A	2/10/20	1	cpm	0.300	4.000	0.8	8.6	1.2E-14	1.4E-13	***1.3%***	***2.3%***	*DVT*	*CB*
AS-0024	Perimeter	MSE02	PE02	60	2/3/20 7:45	2/3/20 15:30	465	2.8E+07	A	2/10/20	1	cpm	0.100	4.450	0.3	9.8	4.1E-15	1.6E-13	***0.5%***	***2.6%***	*DVT*	*CB*
AS-0025	Perimeter	MSE01A	PE03	60	2/4/20 5:45	2/4/20 14:00	495	3.0E+07	A	2/10/20	1	cpm	0.450	3.700	1.1	7.8	1.7E-14	1.2E-13	***1.9%***	***2.0%***	*DVT*	*CB*
AS-0026	Perimeter	MSE02	PE02	60	2/4/20 5:55	2/4/20 13:50	475	2.8E+07	A	2/10/20	1	cpm	0.250	4.550	0.6	10.1	1.0E-14	1.6E-13	***1.1%***	***2.7%***	*DVT*	*CB*
AS-0027	Perimeter	MSE01A	PE03	60	2/5/20 5:40	2/5/20 14:30	530	3.2E+07	A	2/10/20	1	cpm	0.350	2.900	0.9	5.5	1.3E-14	7.8E-14	***1.4%***	***1.3%***	*DVT*	*CB*
AS-0028	Perimeter	MSE02	PE02	60	2/5/20 5:42	2/5/20 14:40	538	3.2E+07	A	2/10/20	1	cpm	0.150	3.250	0.4	6.5	5.3E-15	9.1E-14	***0.6%***	***1.5%***	*DVT*	*CB*
AS-0029	Perimeter	MSE01A	PE03	60	2/6/20 5:45	2/6/20 14:50	545	3.3E+07	A	2/10/20	1	cpm	0.050	4.250	0.1	9.3	1.7E-15	1.3E-13	***0.2%***	***2.1%***	*DVT*	*CB*
AS-0030	Perimeter	MSE02	PE02	60	2/6/20 5:45	2/6/20 14:52	547	3.3E+07	A	2/10/20	1	cpm	0.200	4.350	0.5	9.6	7.0E-15	1.3E-13	***0.8%***	***2.2%***	*DVT*	*CB*
AS-0031	Perimeter	MSE01A	PE03	60	2/18/20 7:20	2/18/20 15:31	491	2.9E+07	A	3/3/20	1	cpm	0.350	4.400	0.9	9.7	1.4E-14	1.5E-13	***1.5%***	***2.5%***	*DVT*	*CB*
AS-0032	Perimeter	MSE02	PE04	60	2/18/20 7:05	2/18/20 15:37	512	3.1E+07	A	3/3/20	1	cpm	0.150	5.300	0.4	12.2	5.6E-15	1.8E-13	***0.6%***	***3.0%***	*DVT*	*CB*
AS-0033	Perimeter	MSE01A	PE03	60	2/19/20 5:40	2/19/20 13:42	482	2.9E+07	A	3/3/20	1	cpm	0.300	4.000	0.8	8.6	1.2E-14	1.3E-13	***1.3%***	***2.2%***	*DVT*	*CB*
AS-0034	Perimeter	MSE02	PE04	60	2/19/20 5:44	2/19/20 13:45	481	2.9E+07	A	3/3/20	1	cpm	0.250	5.000	0.6	11.4	9.9E-15	1.8E-13	***1.1%***	***3.0%***	*DVT*	*CB*
AS-0035	Perimeter	MSE01A	PE03	60	2/20/20 5:27	2/20/20 13:30	483	2.9E+07	A	3/3/20	1	cpm	0.350	4.550	0.9	10.1	1.4E-14	1.6E-13	***1.5%***	***2.6%***	*DVT*	*CB*
AS-0036	Perimeter	MSE02	PE04	60	2/20/20 5:30	2/20/20 13:35	485	2.9E+07	A	3/3/20	1	cpm	0.150	4.000	0.4	8.6	5.9E-15	1.3E-13	***0.7%***	***2.2%***	*DVT*	*CB*
AS-0037	Perimeter	MSE01A	PE03	60	2/24/20 8:33	2/24/20 14:30	357	2.1E+07	A	3/3/20	1	cpm	0.150	3.350	0.4	6.8	8.0E-15	1.4E-13	***0.9%***	***2.4%***	*DVT*	*CB*
AS-0038	Perimeter	MSE02	PE04	60	2/24/20 8:40	2/24/20 14:35	355	2.1E+07	A	3/3/20	1	cpm	0.100	4.750	0.3	10.7	5.4E-15	2.3E-13	***0.6%***	***3.8%***	*DVT*	*CB*
AS-0039	Perimeter	MSE01A	PE03	60	2/25/20 7:25	2/25/20 15:56	511	3.1E+07	A	3/3/20	1	cpm	0.300	3.850	0.8	8.2	1.1E-14	1.2E-13	***1.2%***	***2.0%***	*DVT*	*CB*
AS-0040	Perimeter	MSE02	PE04	60	2/25/20 7:22	2/25/20 16:02	520	3.1E+07	A	3/3/20	1	cpm	0.250	4.650	0.6	10.4	9.2E-15	1.5E-13	***1.0%***	***2.5%***	*DVT*	*CB*
AS-0041	Perimeter	MSE01A	PE03	60	2/26/20 7:08	2/26/20 15:48	520	3.1E+07	A	3/3/20	1	cpm	0.200	4.550	0.5	10.1	7.3E-15	1.5E-13	***0.8%***	***2.4%***	*DVT*	*CB*
AS-0042	Perimeter	MSE02	PE04	60	2/26/20 7:03	2/26/20 16:14	551	3.3E+07	A	3/3/20	1	cpm	0.250	4.600	0.6	10.2	8.6E-15	1.4E-13	***1.0%***	***2.3%***	*DVT*	*CB*
AS-0043	Perimeter	MSE01A	PE03	60	2/27/20 7:22	2/27/20 15:06	464	2.8E+07	A	3/3/20	1	cpm	0.250	4.250	0.6	9.3	1.0E-14	1.5E-13	***1.1%***	***2.5%***	*DVT*	*CB*
AS-0044	Perimeter	MSE02	PE04	60	2/27/20 7:27	2/27/20 15:10	463	2.8E+07	A	3/3/20	1	cpm	0.050	4.400	0.1	9.7	2.1E-15	1.6E-13	***0.2%***	***2.6%***	*DVT*	*CB*

ATTACHMENT 6

LABORATORY REPORTS

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12-Feb-2020

Kristen Carlyon
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E Phase II 1310000400 Work Order: **2002098**

Dear Kristen,

ALS Environmental received 12 samples on 05-Feb-2020 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 12-Feb-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II 1310000400
Work Order: **2002098**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2002098-01	Q0374080-MSE01A	Air		1/30/2020 08:00	2/5/2020 09:30	☐
2002098-02	Q0374081-MSE02	Air		1/30/2020 08:15	2/5/2020 09:30	☐
2002098-03	Q0388649-MSE01A	Air		1/30/2020 14:10	2/5/2020 09:30	☐
2002098-04	Q0388651-MSE02	Air		1/30/2020 14:15	2/5/2020 09:30	☐
2002098-05	Q0388650-MSE01A	Air		2/4/2020 07:57	2/5/2020 09:30	☐
2002098-06	Q0388652-MSE02	Air		2/4/2020 08:22	2/5/2020 09:30	☐
2002098-07	9764181-MSE01A	Air		1/30/2020 07:50	2/5/2020 09:30	☐
2002098-08	9764182-MSE02	Air		1/30/2020 08:13	2/5/2020 09:30	☐
2002098-09	9764193-MSE01A	Air		1/30/2020 14:10	2/5/2020 09:30	☐
2002098-10	9764194-MSE02	Air		1/30/2020 14:15	2/5/2020 09:30	☐
2002098-11	9764196-MSE01A	Air		2/4/2020 07:57	2/5/2020 09:30	☐
2002098-12	9764195-MSE02	Air		2/4/2020 08:22	2/5/2020 09:30	☐

ALS Environmental

Date: 12-Feb-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II 1310000400
Work Order: 2002098

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *12-Feb-20*

Client: Gilbane Company
Project: HPNS Parcel E Phase II 1310000400

Work Order: 2002098

Analytical Results

Lab ID: 2002098-01A **Collection Date:** 1/30/2020 8:00:00 AM
Client Sample ID: Q0374080-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **1576870** Analyst: **CS**
Date Analyzed: 2/7/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**12**	**1.0**	**0.0077**

Lab ID: 2002098-02A **Collection Date:** 1/30/2020 8:15:00 AM
Client Sample ID: Q0374081-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **1580850** Analyst: **CS**
Date Analyzed: 2/7/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**12**	**1.0**	**0.0077**

Lab ID: 2002098-03A **Collection Date:** 1/30/2020 2:10:00 PM
Client Sample ID: Q0388649-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **426590** Analyst: **CS**
Date Analyzed: 2/7/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	ND	1.0	<0.0023

Lab ID: 2002098-04A **Collection Date:** 1/30/2020 2:15:00 PM
Client Sample ID: Q0388651-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **379300** Analyst: **CS**
Date Analyzed: 2/7/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**140**	**1.0**	**0.38**

Note:

Client: Gilbane Company **Work Order:** 2002098
Project: HPNS Parcel E Phase II 1310000400

Analytical Results

Lab ID: 2002098-05A **Collection Date:** 2/4/2020 7:57:00 AM
Client Sample ID: Q0388650-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **800210**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	ND	1.0	<0.0012	

Lab ID: 2002098-06A **Collection Date:** 2/4/2020 8:22:00 AM
Client Sample ID: Q0388652-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1627430**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**1.4**	**1.0**	**0.00086**	

Lab ID: 2002098-07A **Collection Date:** 1/30/2020 7:50:00 AM
Client Sample ID: 9764181-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1670750**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**3.8**	**1.0**	**0.0023**	
METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1670750**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:14		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**240**	**25**	**0.00014**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

Client: Gilbane Company **Work Order:** 2002098
Project: HPNS Parcel E Phase II 1310000400

Analytical Results

Lab ID: 2002098-08A **Collection Date:** 1/30/2020 8:13:00 AM
Client Sample ID: 9764182-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1607130**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**3.5**	**1.0**	**0.0022**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1607130**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:19		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**570**	**25**	**0.00035**	
Lead	ND	25	<0.000016	
Manganese	ND	25	<0.000016	

Lab ID: 2002098-09A **Collection Date:** 1/30/2020 2:10:00 PM
Client Sample ID: 9764193-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **455040**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**2.0**	**1.0**	**0.0044**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **455040**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:23		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**39**	**25**	**0.000087**	
Lead	ND	25	<0.000055	
Manganese	ND	25	<0.000055	

Note:

Client: Gilbane Company **Work Order:** 2002098
Project: HPNS Parcel E Phase II 1310000400

Analytical Results

Lab ID: 2002098-10A **Collection Date:** 1/30/2020 2:15:00 PM
Client Sample ID: 9764194-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **382580**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**21**	**1.0**	**0.054**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **382580**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:43		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**41**	**25**	**0.00011**	
Lead	ND	25	<0.000065	
Manganese	ND	25	<0.000065	

Lab ID: 2002098-11A **Collection Date:** 2/4/2020 7:57:00 AM
Client Sample ID: 9764196-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1720960**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**45**	**1.0**	**0.026**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1720960**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:48		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**460**	**25**	**0.00027**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

ALS Environmental

Date: *12-Feb-20*

Client: Gilbane Company
Project: HPNS Parcel E Phase II 1310000400

Work Order: 2002098

Analytical Results

Lab ID: 2002098-12A
Client Sample ID: 9764195-MSE02

Collection Date: 2/4/2020 8:22:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1650220**	Analyst: **CS**
Date Analyzed: 2/7/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**42**	**1.0**	**0.025**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1650220**	Analyst: **AZ**
Date Analyzed: 2/10/2020 19:52		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**28**	**25**	**0.000017**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

ALS Environmental

Date: 12-Feb-20

Client: Gilbane Company

Work Order: 2002098

Project: HPNS Parcel E Phase II 1310000400

QC BATCH REPORT

Batch ID: **R174684** Instrument ID **BAL2** Method: **TSP**

DUP Sample ID: **2002098-07a dup** Units: **mg/sample** Analysis Date: **2/7/2020**

Client ID: **9764181-MSE01A** Run ID: **BAL2_200207A** SeqNo: **2185943** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	3.7	1.0	0	0	0		3.8	2.67		

The following samples were analyzed in this batch:

2002098-07a	2002098-08a	2002098-09a
2002098-10a	2002098-11a	2002098-12a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002098
Project: HPNS Parcel E Phase II 1310000400

QC BATCH REPORT

Batch ID: **R174686** Instrument ID **BAL2** Method: **PM10**

DUP Sample ID: **2002098-02a dup** Units: **mg/sample** Analysis Date: **2/7/2020**
Client ID: **Q0374081-MSE02** Run ID: **BAL2_200207B** SeqNo: **2185975** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Particulate as PM10	12.76	1.0	0	0	0		12.18	4.65		

The following samples were analyzed in this batch:

2002098-01a	2002098-02a	2002098-03a
2002098-04a	2002098-05a	2002098-06a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002098
Project: HPNS Parcel E Phase II 1310000400

QC BATCH REPORT

Batch ID: **64870** Instrument ID **ICP3** Method: **E12**

MBLK Sample ID: **MBLK-64870-64870** Units: **µg/sample** Analysis Date: **2/10/2020 07:02 PM**
Client ID: Run ID: **ICP3_200210B** SeqNo: **2188396** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-64870-64870** Units: **µg/sample** Analysis Date: **2/10/2020 07:06 PM**
Client ID: Run ID: **ICP3_200210B** SeqNo: **2188397** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	351.8	25	450	0	78.2	75-125	0			
Lead	389.1	25	450	0	86.5	75-125	0			
Manganese	343	25	450	0	76.2	75-125	0			

LCS Sample ID: **LCS-64870-64870** Units: **µg/sample** Analysis Date: **2/11/2020 03:50 PM**
Client ID: Run ID: **ICP3_200211A** SeqNo: **2189291** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	478.8	25	450	0	106	75-125	0			

LCSD Sample ID: **LCSD-64870-64870** Units: **µg/sample** Analysis Date: **2/10/2020 07:10 PM**
Client ID: Run ID: **ICP3_200210B** SeqNo: **2188398** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	340.8	25	450	0	75.7	75-125	351.8	3.17	20	
Lead	381.7	25	450	0	84.8	75-125	389.1	1.91	20	

MS Sample ID: **2002098-09A MS** Units: **µg/sample** Analysis Date: **2/10/2020 07:35 PM**
Client ID: **9764193-MSE01A** Run ID: **ICP3_200210B** SeqNo: **2188402** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	387.4	25	450	39.37	77.4	75-125	0			
Lead	404.4	25	450	1.372	89.6	75-125	0			
Manganese	349.3	25	450	3.117	76.9	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002098
Project: HPNS Parcel E Phase II 1310000400

QC BATCH REPORT

Batch ID: **64870** Instrument ID **ICP3** Method: **E12**

MSD Sample ID: **2002098-09A MSD** Units: **µg/sample** Analysis Date: **2/10/2020 07:39 PM**
Client ID: **9764193-MSE01A** Run ID: **ICP3_200210B** SeqNo: **2188403** Prep Date: **2/10/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	389.4	25	450	39.37	77.8	75-125	387.4	0.498	20	
Lead	407.7	25	450	1.372	90.3	75-125	404.4	0.798	20	
Manganese	350	25	450	3.117	77.1	75-125	349.3	0.193	20	

The following samples were analyzed in this batch:

2002098-07A	2002098-08A	2002098-09A
2002098-10A	2002098-11A	2002098-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 12-Feb-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II 1310000400
WorkOrder: **2002098**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **05-Feb-20 09:30**

Work Order: **2002098** Received by: **SNH**

Checklist completed by Hannah Ponder 05-Feb-20 Reviewed by: Rob Nieman 07-Feb-20

eSignature | Date | eSignature | Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

13-Feb-2020

Kristen Carlyon
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E Phase II J310000400 Work Order: **2002234**

Dear Kristen,

ALS Environmental received 12 samples on 07-Feb-2020 02:01 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 13-Feb-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400
Work Order: **2002234**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2002234-01	Q0388653-MSE01A	Air		2/5/2020 08:11	2/7/2020 14:01	☐
2002234-02	9764197-MSE01A	Air		2/5/2020 08:11	2/7/2020 14:01	☐
2002234-03	Q0374091-MSE02	Air		2/5/2020 08:34	2/7/2020 14:01	☐
2002234-04	9764198-MSE02	Air		2/5/2020 08:34	2/7/2020 14:01	☐
2002234-05	Q0374092-MSE01A	Air		2/6/2020 08:08	2/7/2020 14:01	☐
2002234-06	9764199-MSE01A	Air		2/6/2020 08:08	2/7/2020 14:01	☐
2002234-07	Q0374093-MSE02	Air		2/6/2020 08:24	2/7/2020 14:01	☐
2002234-08	9764200-MSE02	Air		2/6/2020 08:24	2/7/2020 14:01	☐
2002234-09	Q0374094-MSE01A	Air		2/6/2020 14:50	2/7/2020 14:01	☐
2002234-10	9524709-MSE01A	Air		2/6/2020 14:50	2/7/2020 14:01	☐
2002234-11	Q0374095-MSE02	Air		2/6/2020 14:59	2/7/2020 14:01	☐
2002234-12	9524710-MSE02	Air		2/6/2020 14:59	2/7/2020 14:01	☐

Client:	Gilbane Company
Project:	HPNS Parcel E Phase II J310000400
Work Order:	2002234

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *13-Feb-20*

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400

Work Order: 2002234

Analytical Results

Lab ID: 2002234-01A **Collection Date:** 2/5/2020 8:11:00 AM
Client Sample ID: Q0388653-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1651180**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**27**	**1.0**	**0.016**	

Lab ID: 2002234-02A **Collection Date:** 2/5/2020 8:11:00 AM
Client Sample ID: 9764197-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1744050**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**27**	**1.0**	**0.016**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1744050**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:14		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,900**	**25**	**0.0016**	
Lead	ND	25	<0.000014	
Manganese	**29**	**25**	**0.000017**	

Lab ID: 2002234-03A **Collection Date:** 2/5/2020 8:34:00 AM
Client Sample ID: Q0374091-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1618150**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**8.9**	**1.0**	**0.0055**	

Note:

Client: Gilbane Company **Work Order:** 2002234
Project: HPNS Parcel E Phase II J310000400

Analytical Results

Lab ID: 2002234-04A **Collection Date:** 2/5/2020 8:34:00 AM
Client Sample ID: 9764198-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1648650**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**22**	**1.0**	**0.014**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1648650**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:18		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**430**	**25**	**0.00026**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2002234-05A **Collection Date:** 2/6/2020 8:08:00 AM
Client Sample ID: Q0374092-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1624340**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**20**	**1.0**	**0.012**	

Lab ID: 2002234-06A **Collection Date:** 2/6/2020 8:08:00 AM
Client Sample ID: 9764199-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1719800**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**40**	**1.0**	**0.023**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1719800**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:22		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**3,700**	**25**	**0.0022**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

Client: Gilbane Company **Work Order:** 2002234
Project: HPNS Parcel E Phase II J310000400

Analytical Results

Lab ID: 2002234-07A **Collection Date:** 2/6/2020 8:24:00 AM
Client Sample ID: Q0374093-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1609140**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**13**	**1.0**	**0.0082**	

Lab ID: 2002234-08A **Collection Date:** 2/6/2020 8:24:00 AM
Client Sample ID: 9764200-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1638610**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**27**	**1.0**	**0.016**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1638610**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:44		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**550**	**25**	**0.00033**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2002234-09A **Collection Date:** 2/6/2020 2:50:00 PM
Client Sample ID: Q0374094-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **447870**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**2.2**	**1.0**	**0.0049**	

Note:

Client: Gilbane Company **Work Order:** 2002234
Project: HPNS Parcel E Phase II J310000400

Analytical Results

Lab ID: 2002234-10A **Collection Date:** 2/6/2020 2:50:00 PM
Client Sample ID: 9524709-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **476320**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**3.2**	**1.0**	**0.0067**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **476320**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:48		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**670**	**25**	**0.0014**	
Lead	ND	25	<0.000052	
Manganese	ND	25	<0.000052	

Lab ID: 2002234-11A **Collection Date:** 2/6/2020 2:59:00 PM
Client Sample ID: Q0374095-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **440470**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**3.7**	**1.0**	**0.0084**	

Lab ID: 2002234-12A **Collection Date:** 2/6/2020 2:59:00 PM
Client Sample ID: 9524710-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **446400**	Analyst: **CS**
Date Analyzed: 2/12/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**8.1**	**1.0**	**0.018**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **446400**	Analyst: **AZ**
Date Analyzed: 2/13/2020 15:52		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**200**	**25**	**0.00044**	
Lead	ND	25	<0.000056	
Manganese	ND	25	<0.000056	

Note:

ALS Environmental

Date: 13-Feb-20

Client: Gilbane Company

Work Order: 2002234

Project: HPNS Parcel E Phase II J310000400

QC BATCH REPORT

Batch ID: **R174843** Instrument ID **BAL2** Method: **TSP**

DUP Sample ID: **2002234-02a dup** Units: **mg/sample** Analysis Date: **2/12/2020**

Client ID: **9764197-MSE01A** Run ID: **BAL2_200212A** SeqNo: **2189578** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	27.1	1.0	0	0	0		27.2	0.368		

The following samples were analyzed in this batch:

2002234-02a	2002234-04a	2002234-06a
2002234-08a	2002234-10a	2002234-12a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002234
Project: HPNS Parcel E Phase II J310000400

QC BATCH REPORT

Batch ID: **64930** Instrument ID **ICP3** Method: **E12**

MBLK Sample ID: **MBLK-64930-64930** Units: **µg/sample** Analysis Date: **2/13/2020 03:02 PM**
Client ID: Run ID: **ICP3_200213A** SeqNo: **2190745** Prep Date: **2/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-64930-64930** Units: **µg/sample** Analysis Date: **2/13/2020 03:06 PM**
Client ID: Run ID: **ICP3_200213A** SeqNo: **2190746** Prep Date: **2/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	427.4	25	450	0	95	75-125	0			
Lead	411.9	25	450	0	91.5	75-125	0			
Manganese	403.3	25	450	0	89.6	75-125	0			

LCSD Sample ID: **LCSD-64930-64930** Units: **µg/sample** Analysis Date: **2/13/2020 03:10 PM**
Client ID: Run ID: **ICP3_200213A** SeqNo: **2190747** Prep Date: **2/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	400.9	25	450	0	89.1	75-125	427.4	6.4	20	
Lead	388.3	25	450	0	86.3	75-125	411.9	5.92	20	
Manganese	376.6	25	450	0	83.7	75-125	403.3	6.87	20	

MS Sample ID: **2002234-12A MS** Units: **µg/sample** Analysis Date: **2/13/2020 03:57 PM**
Client ID: **9524710-MSE02** Run ID: **ICP3_200213A** SeqNo: **2190754** Prep Date: **2/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	636.8	25	450	198.1	97.5	75-125	0			
Lead	426	25	450	2.048	94.2	75-125	0			
Manganese	423.8	25	450	6.358	92.8	75-125	0			

MSD Sample ID: **2002234-12A MSD** Units: **µg/sample** Analysis Date: **2/13/2020 04:01 PM**
Client ID: **9524710-MSE02** Run ID: **ICP3_200213A** SeqNo: **2190755** Prep Date: **2/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	636.3	25	450	198.1	97.4	75-125	636.8	0.0707	20	
Lead	433.4	25	450	2.048	95.8	75-125	426	1.72	20	
Manganese	423.3	25	450	6.358	92.7	75-125	423.8	0.106	20	

The following samples were analyzed in this batch:

2002234-02A	2002234-04A	2002234-06A
2002234-08A	2002234-10A	2002234-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 13-Feb-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400
WorkOrder: **2002234**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **07-Feb-20 14:01**

Work Order: **2002234** Received by: **JNW**

Checklist completed by Jan Wilcox 10-Feb-20 Reviewed by: Rob Nieman 12-Feb-20

eSignature | Date | eSignature | Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

10-Mar-2020

Kristen Carlyon
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E; J310000400 Work Order: **2002760**

Dear Kristen,

ALS Environmental received 12 samples on 21-Feb-2020 09:41 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 12.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 10-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E; J310000400
Work Order: **2002760**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2002760-01	Q0374097-MSE01A	Air		2/19/2020 07:53	2/21/2020 09:41	☐
2002760-02	9524712-MSE01A	Air		2/19/2020 07:53	2/21/2020 09:41	☐
2002760-03	Q0374096-MSE02	Air		2/19/2020 08:22	2/21/2020 09:41	☐
2002760-04	9524711-MSE02	Air		2/19/2020 08:22	2/21/2020 09:41	☐
2002760-05	Q0374098-MSE01A	Air		2/20/2020 07:38	2/21/2020 09:41	☐
2002760-06	9524713-MSE01A	Air		2/20/2020 07:38	2/21/2020 09:41	☐
2002760-07	Q0374099-MSE02	Air		2/20/2020 08:00	2/21/2020 09:41	☐
2002760-08	9524714-MSE02	Air		2/20/2020 08:00	2/21/2020 09:41	☐
2002760-09	Q0374085-MSE01A	Air		2/20/2020 14:46	2/21/2020 09:41	☐
2002760-10	9524715-MSE01A	Air		2/20/2020 14:46	2/21/2020 09:41	☐
2002760-11	Q0374100-MSE02	Air		2/20/2020 14:58	2/21/2020 09:41	☐
2002760-12	9524716-MSE02	Air		2/20/2020 14:58	2/21/2020 09:41	☐

ALS Environmental

Date: 10-Mar-20

Client:	Gilbane Company
Project:	HPNS Parcel E; J310000400
Work Order:	2002760

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

This report was revised as follows: Samples 2002760-08, -12 and MS/MSD samples were re-run.

3/10/20: This report was revised as follows: Sample IDs were updated per client request.

ALS Environmental

Date: *10-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E; J310000400

Work Order: 2002760

Analytical Results

Lab ID: 2002760-01A
Client Sample ID: Q0374097-MSE01A

Collection Date: 2/19/2020 7:53:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **1583550** Analyst: **CS**
Date Analyzed: 2/25/2020

		Reporting Limit	
	mg/sample	mg/sample	**mg/m3**
Particulate as PM10	**29**	**1.0**	**0.018**

Lab ID: 2002760-02A
Client Sample ID: 9524712-MSE01A

Collection Date: 2/19/2020 7:53:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B Method: **TSP** Air Volume (L): **1667850** Analyst: **CS**
Date Analyzed: 2/25/2020

		Reporting Limit	
	mg/sample	mg/sample	mg/m3
Total suspended particulate	**28**	**1.0**	**0.016**

METALS BY EPA METHOD 12 MOD. Method: **E12** Air Volume (L): **1667850** Analyst: **AZ**
Date Analyzed: 2/27/2020 13:12

		Reporting Limit	
	µg/sample	µg/sample	**mg/m3**
Copper	**1,600**	**25**	**0.00096**
Lead	ND	25	<0.000015
Manganese	ND	25	<0.000015

Lab ID: 2002760-03A
Client Sample ID: Q0374096-MSE02

Collection Date: 2/19/2020 8:22:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **583270** Analyst: **CS**
Date Analyzed: 2/25/2020

		Reporting Limit	
	mg/sample	mg/sample	**mg/m3**
Particulate as PM10	**11**	**1.0**	**0.019**

Note:

Client: Gilbane Company **Work Order:** 2002760
Project: HPNS Parcel E; J310000400

Analytical Results

Lab ID: 2002760-04A **Collection Date:** 2/19/2020 8:22:00 AM
Client Sample ID: 9524711-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1661600**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**23**	**1.0**	**0.014**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1661600**	Analyst: **AZ**
Date Analyzed: 2/27/2020 13:17		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**230**	**25**	**0.00014**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2002760-05A **Collection Date:** 2/20/2020 7:38:00 AM
Client Sample ID: Q0374098-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1617480**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**35**	**1.0**	**0.021**	

Lab ID: 2002760-06A **Collection Date:** 2/20/2020 7:38:00 AM
Client Sample ID: 9524713-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1707280**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**62**	**1.0**	**0.036**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1707280**	Analyst: **AZ**
Date Analyzed: 2/27/2020 13:21		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,400**	**25**	**0.0014**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

Client: Gilbane Company **Work Order:** 2002760
Project: HPNS Parcel E; J310000400

Analytical Results

Lab ID: 2002760-07A **Collection Date:** 2/20/2020 8:00:00 AM
Client Sample ID: Q0374099-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1595530**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**18**	**1.0**	**0.011**	

Lab ID: 2002760-08A **Collection Date:** 2/20/2020 8:00:00 AM
Client Sample ID: 9524714-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1622640**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**44**	**1.0**	**0.027**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1622640**	Analyst: **AZ**
Date Analyzed: 3/4/2020 11:29		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**370**	**25**	**0.00023**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2002760-09A **Collection Date:** 2/20/2020 2:46:00 PM
Client Sample ID: Q0374085-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **483050**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**9.1**	**1.0**	**0.019**	

Note:

ALS Environmental

Date: *10-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E; J310000400

Work Order: 2002760

Analytical Results

Lab ID: 2002760-10A
Collection Date: 2/20/2020 2:46:00 PM
Client Sample ID: 9524715-MSE01A
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **511530**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**18**	**1.0**	**0.034**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **511530**	Analyst: **AZ**
Date Analyzed: 2/27/2020 13:37		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**370**	**25**	**0.00073**	
Lead	ND	25	<0.000049	
Manganese	ND	25	<0.000049	

Lab ID: 2002760-11A
Collection Date: 2/20/2020 2:58:00 PM
Client Sample ID: Q0374100-MSE02
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **473760**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**11**	**1.0**	**0.023**	

Lab ID: 2002760-12A
Collection Date: 2/20/2020 2:58:00 PM
Client Sample ID: 9524716-MSE02
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **477340**	Analyst: **CS**
Date Analyzed: 2/25/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**6.9**	**1.0**	**0.014**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **477340**	Analyst: **AZ**
Date Analyzed: 3/4/2020 11:33		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**190**	**25**	**0.00040**	
Lead	ND	25	<0.000052	
Manganese	ND	25	<0.000052	

Note:

ALS Environmental

Date: 10-Mar-20

Client: Gilbane Company

Work Order: 2002760

Project: HPNS Parcel E; J310000400

QC BATCH REPORT

Batch ID: **R175234** Instrument ID **BAL1** Method: **PM10**

DUP Sample ID: **2002760-01a dup** Units: **mg/sample** Analysis Date: **2/25/2020**

Client ID: **Q0374097-MSE01A** Run ID: **BAL1_200225A** SeqNo: **2197440** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Particulate as PM10	29.2	1.0	0	0	0		29.1	0.343		

The following samples were analyzed in this batch:

2002760-01a	2002760-03a	2002760-05a
2002760-07a	2002760-09a	2002760-11a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002760
Project: HPNS Parcel E; J310000400

QC BATCH REPORT

Batch ID: **R175236** Instrument ID **BAL1** Method: **TSP**

DUP Sample ID: **2002760-02a dup** Units: **mg/sample** Analysis Date: **2/25/2020**
Client ID: **9524712-MSE01A** Run ID: **BAL1_200225B** SeqNo: **2197448** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	27.3	1.0	0	0	0		27.5	0.73		

The following samples were analyzed in this batch:

2002760-02a	2002760-04a	2002760-06a
2002760-08a	2002760-10a	2002760-12a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2002760
Project: HPNS Parcel E; J310000400

QC BATCH REPORT

Batch ID: **65241** Instrument ID **ICP3** Method: **E12**

MBLK Sample ID: **MBLK-65241-65241** Units: **µg/sample** Analysis Date: **2/27/2020 01:00 PM**
Client ID: Run ID: **ICP3_200227A** SeqNo: **2200015** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-65241-65241** Units: **µg/sample** Analysis Date: **2/27/2020 01:04 PM**
Client ID: Run ID: **ICP3_200227A** SeqNo: **2200016** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	374.9	25	450	0	83.3	75-125	0			
Lead	390.8	25	450	0	86.8	75-125	0			
Manganese	367.7	25	450	0	81.7	75-125	0			

LCSD Sample ID: **LCSD-65241-65241** Units: **µg/sample** Analysis Date: **2/27/2020 01:08 PM**
Client ID: Run ID: **ICP3_200227A** SeqNo: **2200017** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	386.9	25	450	0	86	75-125	374.9	3.13	20	
Lead	398.3	25	450	0	88.5	75-125	390.8	1.9	20	
Manganese	376.8	25	450	0	83.7	75-125	367.7	2.44	20	

MS Sample ID: **2002760-12A MS** Units: **µg/sample** Analysis Date: **3/4/2020 11:37 AM**
Client ID: **9524716-MSE02** Run ID: **ICP1_200304A** SeqNo: **2204061** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	582.3	25	450	188.9	87.4	75-125	0			
Lead	432.5	25	450	2.163	95.6	75-125	0			
Manganese	432.9	25	450	8.374	94.3	75-125	0			

MSD Sample ID: **2002760-12A MSD** Units: **µg/sample** Analysis Date: **3/4/2020 11:41 AM**
Client ID: **9524716-MSE02** Run ID: **ICP1_200304A** SeqNo: **2204062** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	576	25	450	188.9	86	75-125	582.3	1.09	20	
Lead	427.5	25	450	2.163	94.5	75-125	432.5	1.15	20	
Manganese	430.9	25	450	8.374	93.9	75-125	432.9	0.458	20	

The following samples were analyzed in this batch:

2002760-02A	2002760-04A	2002760-06A
2002760-08A	2002760-10A	2002760-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E; J310000400
WorkOrder: **2002760**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **21-Feb-20 09:41**

Work Order: **2002760** Received by: **DNS**

Checklist completed by Jan Wilcox 21-Feb-20 Reviewed by: Rob Nieman 25-Feb-20

eSignature | Date | eSignature | Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

10-Mar-2020

Kristen Carlyon
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E-2; J310000400 Work Order: **20021083**

Dear Kristen,

ALS Environmental received 16 samples on 28-Feb-2020 10:16 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 15.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 10-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400
Work Order: **20021083**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021083-01	Q0374086-MSE01A	Air		2/25/2020 07:41	2/28/2020 10:16	☐
20021083-02	9524717-MSE01A	Air		2/25/2020 07:41	2/28/2020 10:16	☐
20021083-03	Q0374087-MSE02	Air		2/25/2020 07:56	2/28/2020 10:16	☐
20021083-04	9524718-MSE02	Air		2/25/2020 07:56	2/28/2020 10:16	☐
20021083-05	Q0374088-MSE01A	Air		2/26/2020 08:05	2/28/2020 10:16	☐
20021083-06	9524719-MSE01A	Air		2/26/2020 08:05	2/28/2020 10:16	☐
20021083-07	Q0374089-MSE02	Air		2/26/2020 08:24	2/28/2020 10:16	☐
20021083-08	9524720-MSE02	Air		2/26/2020 08:24	2/28/2020 10:16	☐
20021083-09	Q0374068-MSE01A	Air		2/27/2020 07:41	2/28/2020 10:16	☐
20021083-10	9764171-MSE01A	Air		2/27/2020 07:41	2/28/2020 10:16	☐
20021083-11	Q0374069-MSE02	Air		2/27/2020 07:57	2/28/2020 10:16	☐
20021083-12	9764172-MSE02	Air		2/27/2020 07:57	2/28/2020 10:16	☐
20021083-13	Q0374066-MSE01A	Air		2/27/2020 14:43	2/28/2020 10:16	☐
20021083-14	9764169-MSE01A	Air		2/27/2020 14:43	2/28/2020 10:16	☐
20021083-15	Q0374067-MSE02	Air		2/27/2020 14:59	2/28/2020 10:16	☐
20021083-16	9764170-MSE02	Air		2/27/2020 14:59	2/28/2020 10:16	☐

Client:	Gilbane Company
Project:	HPNS Parcel E-2; J310000400
Work Order:	20021083

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

This report was revised as follows: Sample IDs were updated per client request.

ALS Environmental

Date: *10-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400

Work Order: 20021083

Analytical Results

Lab ID: 20021083-01A
Collection Date: 2/25/2020 7:41:00 AM
Client Sample ID: Q0374086-MSE01A
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **1589640** Analyst: **CS**
Date Analyzed: 3/3/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**29**	**1.0**	**0.018**

Lab ID: 20021083-02A
Collection Date: 2/25/2020 7:41:00 AM
Client Sample ID: 9524717-MSE01A
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B Method: **TSP** Air Volume (L): **1676530** Analyst: **CS**
Date Analyzed: 3/3/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Total suspended particulate	**70**	**1.0**	**0.041**

METALS BY EPA METHOD 12 MOD. Method: **E12** Air Volume (L): **1676530** Analyst: **AZ**
Date Analyzed: 3/4/2020 18:13

	µg/sample	Reporting Limit µg/sample	mg/m3
Copper	**2,300**	**25**	**0.0014**
Lead	**55**	**25**	**0.000033**
Manganese	**38**	**25**	**0.000023**

Lab ID: 20021083-03A
Collection Date: 2/25/2020 7:56:00 AM
Client Sample ID: Q0374087-MSE02
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **1579200** Analyst: **CS**
Date Analyzed: 3/3/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**17**	**1.0**	**0.011**

Note:

Client: Gilbane Company **Work Order:** 20021083
Project: HPNS Parcel E-2; J310000400

Analytical Results

Lab ID: 20021083-04A **Collection Date:** 2/25/2020 7:56:00 AM
Client Sample ID: 9524718-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1606840**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**52**	**1.0**	**0.032**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1606840**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:17		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**540**	**25**	**0.00034**	
Lead	**48**	**25**	**0.000030**	
Manganese	ND	25	<0.000016	

Lab ID: 20021083-05A **Collection Date:** 2/26/2020 8:05:00 AM
Client Sample ID: Q0374088-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1573930**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**19**	**1.0**	**0.012**	

Lab ID: 20021083-06A **Collection Date:** 2/26/2020 8:05:00 AM
Client Sample ID: 9524719-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1768500**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**75**	**1.0**	**0.042**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1768500**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:21		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**3,400**	**25**	**0.0019**	
Lead	ND	25	<0.000014	
Manganese	**53**	**25**	**0.000030**	

Note:

Client: Gilbane Company **Work Order:** 20021083
Project: HPNS Parcel E-2; J310000400

Analytical Results

Lab ID: 20021083-07A **Collection Date:** 2/26/2020 8:24:00 AM
Client Sample ID: Q0374089-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1673740**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**16**	**1.0**	**0.0093**	

Lab ID: 20021083-08A **Collection Date:** 2/26/2020 8:24:00 AM
Client Sample ID: 9524720-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1700300**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**59**	**1.0**	**0.035**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1700300**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:26		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**820**	**25**	**0.00048**	
Lead	ND	25	<0.000015	
Manganese	**45**	**25**	**0.000026**	

Lab ID: 20021083-09A **Collection Date:** 2/27/2020 7:41:00 AM
Client Sample ID: Q0374068-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1616980**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**45**	**1.0**	**0.028**	

Note:

Client: Gilbane Company **Work Order:** 20021083
Project: HPNS Parcel E-2; J310000400

Analytical Results

Lab ID: 20021083-10A **Collection Date:** 2/27/2020 7:41:00 AM
Client Sample ID: 9764171-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1719910**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**87**	**1.0**	**0.050**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1719910**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:30		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,700**	**25**	**0.0016**	
Lead	**31**	**25**	**0.000018**	
Manganese	**57**	**25**	**0.000033**	

Lab ID: 20021083-11A **Collection Date:** 2/27/2020 7:57:00 AM
Client Sample ID: Q0374069-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1607480**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**31**	**1.0**	**0.020**	

Lab ID: 20021083-12A **Collection Date:** 2/27/2020 7:57:00 AM
Client Sample ID: 9764172-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1636230**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**63**	**1.0**	**0.039**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1636230**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:34		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**650**	**25**	**0.00040**	
Lead	ND	25	<0.000015	
Manganese	**42**	**25**	**0.000026**	

Note:

Analytical Results

Lab ID: 20021083-13A **Collection Date:** 2/27/2020 2:43:00 PM
Client Sample ID: Q0374066-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **482660**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**3.0**	**1.0**	**0.0062**	

Lab ID: 20021083-14A **Collection Date:** 2/27/2020 2:43:00 PM
Client Sample ID: 9764169-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **509200**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**19**	**1.0**	**0.037**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **509200**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:38		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**820**	**25**	**0.0016**	
Lead	ND	25	<0.000049	
Manganese	ND	25	<0.000049	

Lab ID: 20021083-15A **Collection Date:** 2/27/2020 2:59:00 PM
Client Sample ID: Q0374067-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **473170**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	ND	1.0	<0.0021	

Note:

ALS Environmental

Date: *10-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400

Work Order: 20021083

Analytical Results

Lab ID: 20021083-16A
Client Sample ID: 9764170-MSE02

Collection Date: 2/27/2020 2:59:00 PM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **482610**	Analyst: **CS**
Date Analyzed: 3/3/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**8.8**	**1.0**	**0.018**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **482610**	Analyst: **AZ**
Date Analyzed: 3/4/2020 18:59		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**250**	**25**	**0.00051**	
Lead	ND	25	<0.000052	
Manganese	ND	25	<0.000052	

Note:

QC BATCH REPORT

Batch ID: **R175477** Instrument ID **BAL2** Method: **PM10**

DUP Sample ID: **20021083-01a dup** Units: **mg/sample** Analysis Date: **3/3/2020**

Client ID: **Q0374086-MSE01A** Run ID: **BAL2_200303A** SeqNo: **2202214** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Particulate as PM10	28.8	1.0	0	0	0		28.7	0.348		

The following samples were analyzed in this batch:

20021083-01a	20021083-03a	20021083-05a
20021083-07a	20021083-09a	20021083-11a
20021083-13a	20021083-15a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 20021083
Project: HPNS Parcel E-2; J310000400

QC BATCH REPORT

Batch ID: **R175506** Instrument ID **BAL2** Method: **TSP**

DUP Sample ID: **20021083-02a dup** Units: **mg/sample** Analysis Date: **3/3/2020**
Client ID: **9524717-MSE01A** Run ID: **BAL2_200303B** SeqNo: **2202806** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	69.5	1.0	0	0	0		69.5	0		

The following samples were analyzed in this batch:

20021083-02a	20021083-04a	20021083-06a
20021083-08a	20021083-10a	20021083-12a
20021083-14a	20021083-16a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 20021083
Project: HPNS Parcel E-2; J310000400

QC BATCH REPORT

Batch ID: **65368** Instrument ID **ICP3** Method: **E12**

MBLK Sample ID: **MBLK-65368-65368** Units: **µg/sample** Analysis Date: **3/4/2020 05:53 PM**
Client ID: Run ID: **ICP3_200304B** SeqNo: **2204715** Prep Date: **3/4/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-65368-65368** Units: **µg/sample** Analysis Date: **3/4/2020 05:57 PM**
Client ID: Run ID: **ICP3_200304B** SeqNo: **2204716** Prep Date: **3/4/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	415.9	25	450	0	92.4	75-125	0			
Lead	417.8	25	450	0	92.8	75-125	0			
Manganese	413.2	25	450	0	91.8	75-125	0			

LCSD Sample ID: **LCSD-65368-65368** Units: **µg/sample** Analysis Date: **3/4/2020 06:09 PM**
Client ID: Run ID: **ICP3_200304B** SeqNo: **2204717** Prep Date: **3/4/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	390.2	25	450	0	86.7	75-125	415.9	6.39	20	
Lead	404.4	25	450	0	89.9	75-125	417.8	3.25	20	
Manganese	392.7	25	450	0	87.3	75-125	413.2	5.09	20	

MS Sample ID: **20021083-14A MS** Units: **µg/sample** Analysis Date: **3/4/2020 06:42 PM**
Client ID: **9764169-MSE01A** Run ID: **ICP3_200304B** SeqNo: **2204725** Prep Date: **3/4/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	1181	25	450	823.5	79.4	75-125	0			
Lead	413.9	25	450	6.561	90.5	75-125	0			
Manganese	407	25	450	16.6	86.8	75-125	0			

MSD Sample ID: **20021083-14A MSD** Units: **µg/sample** Analysis Date: **3/4/2020 06:46 PM**
Client ID: **9764169-MSE01A** Run ID: **ICP3_200304B** SeqNo: **2204726** Prep Date: **3/4/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	1160	25	450	823.5	74.7	75-125	1181	1.81	20	S
Lead	416.9	25	450	6.561	91.2	75-125	413.9	0.726	20	
Manganese	407.1	25	450	16.6	86.8	75-125	407	0.0332	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 20021083
Project: HPNS Parcel E-2; J310000400

QC BATCH REPORT

Batch ID: **65368** Instrument ID **ICP3** Method: **E12**

The following samples were analyzed in this batch:

20021083-02A	20021083-04A	20021083-06A
20021083-08A	20021083-10A	20021083-12A
20021083-14A	20021083-16A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400
WorkOrder: **20021083**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **28-Feb-20 10:16**

Work Order: **20021083** Received by: **DNS**

Checklist completed by H annah P onder 28-Feb-20 Reviewed by: R ob N ieman 03-Mar-20

eSignature | Date | eSignature | Date

Matrices: air
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	n/a		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: