August Mack ENVIRONMENTAL
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7830 North Central Drive, Suite B ▪ Lewis Center, Ohio 43035

February 22, 2018

Nachurs Alpine Solutions
c/o Mr. William Hayes
Frost Brown Todd, LLC
3300 Great American Tower
Cincinnati, OH 45202

Re: Limited Phase II Subsurface Investigation
101 North 1st Street
Sunnyside, WA 98944
August Mack Project Number JS0086.741

Dear Mr. Hayes:

August Mack Environmental, Inc. (August Mack) has completed a Limited Phase II Subsurface Investigation at the above-referenced site (Site). The purpose of this investigation is to determine if the former use of the Site as a fertilizer storage facility has adversely impacted subsurface conditions. This report includes a description of the scope of work, a summary of field activities, sampling procedures, laboratory analytical results, and conclusions.

This report was prepared at the request of Frost Brown Todd on behalf of Nachurs Alpine Solutions. Reliance on the information and conclusions presented in this report by any other party(ies) is not authorized by August Mack.

SUBSURFACE INVESTIGATION

Investigation Locations

August Mack mobilized to the Site on February 7, 2018 to perform the subsurface investigation activities. Prior to commencing subsurface investigation activities, ground penetrating radar (GPR), electromagnetic (EM) locating, and other utility locating tools were used to clear all boring locations. A total of 11 soil borings (SB-1 through SB-11) were advanced on-Site with a hand auger and Geoprobe® direct push sampling system. The soil boring locations are depicted on **Figure 1**.

Soil and Groundwater Sampling Methodology

Soil borings SB-1 through SB-8 were advanced with a hand auger and/or shovel to a maximum depth of three (3) feet below grade (ft bg). Soil borings SB-9 through SB-11

were advanced with a Geoprobe® to a maximum depth of 10 ft bg, where groundwater was encountered. The purpose of the soil borings was to determine geological conditions and collect soil and/or groundwater samples for laboratory analysis. All of the soils were inspected in the field for odors and staining. Lithological information for each soil boring is provided on boring logs included as **Attachment A.**

A total of eight (8) composite soil samples were collected from shallow borings SB-1 through SB-8, and one (1) grab soil sample was collected from each of the three (3) Geoprobe® borings, SB-9 through SB-11. Soil samples were submitted to Pace Analytical® located in Indianapolis, Indiana, for nitrate (measured as nitrogen), total Kjeldahl nitrogen (TKN), arsenic, cadmium, cobalt, lead, mercury, molybdenum, nickel, selenium, and zinc analyses. August Mack field procedures for soil sampling are provided in **Attachment B**.

Groundwater samples were collected from soil borings SB-9, SB-10, and SB-11. Groundwater samples were collected from the Geoprobe® groundwater sampling tooling using a peristaltic pump and new, disposable sample tubing. One (1) groundwater sample was collected from each of these boring locations and submitted to Pace Analytical® for nitrate (measured as nitrogen), combined nitrite plus nitrate, TKN, arsenic, cadmium, cobalt, lead, mercury, molybdenum, nickel, selenium, and zinc analyses. For metals analysis, unfiltered samples were collected in both preserved and unpreserved sample containers. Unfiltered metals samples collected in unpreserved sample containers were lab filtered prior to analysis to obtain dissolved analytical results. Unfiltered metals samples collected in preserved sample containers were analyzed to obtain total analytical results.

Field Observations
Inspection of soil borings and soil samples revealed a shallow subsurface geology consisting primarily of sandy gravel underlain by fine sand. Groundwater was encountered at depths ranging from 7 to 10 ft bg in borings SB-9, SB-10 and SB-11. No evidence of odors or staining was observed in any of the borings.

Soil Analytical Results
Soil analytical results for metals were compared to the U.S. Environmental Protection Agency's (U.S. EPA) Industrial Direct Contact Regional Screening Levels (RSLs). With the exception of arsenic, all metals, nitrate, and TKN concentrations were either below the laboratory reporting limits (i.e. non-detect) or below the RSLs (were established).

Arsenic concentrations in the soil samples ranged from 3.8 milligrams/kilogram (mg/kg) to 10.1 mg/kg. Although the arsenic concentrations observed in these soil samples are above the U.S. EPA's Industrial RSL of 3.0 mg/kg, arsenic concentrations are below the Washington Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup level for industrial properties of 20 mg/kg. Additionally, the arsenic

concentrations observed at this Site are consistent with background concentrations identified in the State of Washington, which is further detailed in the **Discussion Regarding Sampling Results** section below. Soil analytical results are summarized in **Table 1.** A copy of the laboratory analytical report and chain of custody documentation is included in **Attachment C**.

Groundwater Analytical Results

Groundwater analytical results were compared to the U.S. EPA's Maximum Contaminant Levels (MCLs). Total arsenic was detected at concentrations above the MCL (10 µg/L) in unfiltered groundwater samples collected from SB-9 and SB-10 (373 µg/L and 29.5 µg/L (respectively). Total lead was detected at a concentration above the MCL (15 µg/L) in the unfiltered groundwater sample collected from SB-9 (374 µg/L). However, the unfiltered groundwater total metals results are typically biased high due to elevated turbidity of the sample and the affinity for the metals to attach to the suspended soil particles in the unfiltered water sample. Analysis of the dissolved (i.e. lab filtered) metals samples revealed no detections of lead in any of the groundwater samples. Dissolved arsenic concentrations were observed in SB-9 through SB-11 ranging from 10.9 to 28.2 µg/L, which is slightly above the arsenic MCL of 10 µg/L. No other metals results (total or dissolved) exceeded an MCL.

Nitrate and combined nitrite plus nitrate concentrations exceeded respective MCLs, 10 milligrams/Liter (mg/L) for both analytes, in all three (3) groundwater samples. Groundwater analytical concentrations ranged from 120 to 240 mg/L for nitrate and 121 to 241 mg/L for combined nitrite plus nitrate. The similar results for both nitrate and combined nitrite plus nitrate indicate that nitrite concentrations were negligible in the water samples. All remaining analytes were either below laboratory reporting limits (i.e. non-detect) or below the MCLs.

The groundwater analytical results are summarized in **Table 2**. A copy of the laboratory analytical report and chain of custody documentation is included in **Attachment C**. Additional discussion regarding the groundwater results and the comparative regulatory screening levels can be found below in the **Discussions Regarding Sampling Results** and **Summary & Conclusions** sections below**.**

DISCUSSION REGARDING SAMPLING RESULTS

Arsenic was identified in all soil samples, ranging in concentration from 3.8 mg/kg to 10.1 mg/kg. Although these concentrations are above the U.S. EPA's Industrial Soil RSL, all results were below the 20 mg/kg cleanup level for Industrial Properties established by the Washington Department of Ecology MTCA. Furthermore, based on a study conducted by the U.S. Geological Survey (*Background Concentrations of Metals in Soils from Selected Regions in the State of Washington,* U.S. Geological Survey, 1995*),* the soil arsenic concentrations detected at the Site are within the range of observed background

concentrations in the State of Washington (ranging from 0.8 mg/kg to 20 mg/kg), and are below the 90th percentile background concentration of 13 mg/kg.

The exceedance of the arsenic MCL in the groundwater is most likely a result of the naturally-occurring arsenic found in the soil in that area. Based on the soil arsenic concentrations being within background concentrations, there is no evidence that historic activities on the Site have impacted soil or groundwater with arsenic.

Although total lead in the groundwater samples exceeded the MCL, this result is most likely influenced by sediment suspended in the groundwater sample. Turbidity was observed in the groundwater samples that were collected from the three (3) soil borings. The dissolved lead result is more indicative of the actual concentration in the groundwater itself. No dissolved lead was observed in any groundwater sample; therefore, there is no evidence that the groundwater has been impacted from lead as a result of past activities on the Site.

Nitrate concentrations exceeding the MCL were detected in the three (3) groundwater samples collected on-Site. However, this groundwater was collected from a shallow water-bearing zone at a depth of 7 to 10 feet below grade (ft bg), in a largely industrial area, and along a major railroad right-of-way. Water at this shallow depth is not within a zone that has consistently occurring groundwater and is not utilized as a drinking water source in the area.

August Mack review of the Washington Department of Ecology well logs identified approximately 14 domestic or municipal water wells located within ½ mile of the Site. Of the 14 wells, nine (9) are completed within the unconsolidated sand and gravel aquifer. However, the shallowest wells draw water from deeper than 100 ft bg. Two (2) of the unconsolidated aquifer wells are located within 1,000 feet of the Site. Both wells are municipal wells owned by the City of Sunnyside, and they draw water from deeper than 300 feet below grade (ft bg). Well logs for these two (2) municipal wells show substantial silt and clay layers starting at a depth of approximately 62 ft bg and terminating at approximately 135 feet in one (1) well and 230 feet in the other. This clay layer would prevent the vertical migration of nitrate to the depths at which these wells draw water. The remaining five (5) wells identified within ½ mile of the Site are completed in basalt bedrock, which begins at approximately 420 to 460 feet bg. Based on the limited nature of the analytical concentrations in groundwater, the shallow depth of the groundwater, and the distance to the nearest potential receptors, there is no threat to human health or the environment as a result of the groundwater concentrations identified at the Site.

SUMMARY & CONCLUSIONS

August Mack has completed Limited Phase II Subsurface Investigation activities at 101 North 1st Street, Sunnyside, Washington. A total of eleven (11) borings (SB-1 through SB-11) were advanced on Site. Soil samples were collected from each of the soil borings, and groundwater was collected from three (3) boring locations. Each sample was analyzed for a variety of metals, as well as nitrate and TKN. The laboratory analytical results for the soil samples collected indicate that arsenic exceeds the U.S. EPA's Industrial RSL; arsenic and nitrate exceed the MCL for groundwater (although combined nitrite plus nitrate exceeded the MCL, the exceedance resulted entirely from the presence of nitrate). No other constituents exceeded the U.S. EPA's Industrial RSL or MCL.

Although arsenic concentrations in soil exceeded the U.S. EPA's Industrial RSL, the concentrations were consistent with background concentrations for Washington soils and were below the Washington Department of Ecology MTCA Method A cleanup level for industrial properties of 20 mg/kg. The exceedance of the arsenic MCL within the groundwater is most likely a result of the naturally elevated soil arsenic concentrations. The MCL exceedance of nitrate observed in the groundwater occurs within a shallow zone of perched water that is not utilized as a drinking water source (drinking water wells are installed at much deeper depths in the area). Based on a well log search of the surrounding area, the shallow water zone observed at the Site is isolated by a thick clay layer from the deeper aquifer utilized for drinking water.

Due to the limited nature of the analytical concentrations observed in soil and groundwater, the shallow depth of groundwater at the Site, and the distance to the nearest potential receptors, there is no threat to human health or the environment. It is August Mack's professional opinion that no further investigation of soil or groundwater is warranted at the Site.

We appreciate the opportunity to provide you with environmental consulting services and trust that this submittal is in accordance with your needs. Please feel free to contact us if you have any questions or comments, or require additional information regarding this project or the project site.

Sincerely,

Brandon C. Lewis
Senior Project Manager

Shannon Landrum
Practice Leader, Transaction
Environmental Professional

Attachments

FIGURES

Figure 1: Site Plan with Sampling Locations

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Boring Locations
101 N. 1st Street
Sunnyside, Washington

PROJECT NO.: JS0086.741

APPROXIMATE BORING LOCATION

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TABLES

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TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
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August Mack ENVIRONMENTAL	Sample Description:	USEPA INDUSTRIAL SOIL REGIONAL SCREENING LEVELS (RSLs) (^)	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11
	Sample ID (Depth - ft.):		0-3	0-3	0-3	0-3	0-3	0-3	0-3	0-3	4-6	4-6	4-6
	Sample Date:		02/07/2018	02/07/2018	02/07/2018	02/07/2018	02/07/2018	02/07/2018	02/07/2018	02/07/2018	02/08/2018	02/08/2018	02/08/2018
HEAVY METALS VIA USEPA METHODS 6010/7471													
Arsenic		**3.0**	**5.0** ^	**3.8** ^	**4.4** ^	**4.6** ^	**5.2** ^	**5.0** ^	**4.3** ^	**8.0** ^	**10.1** ^	**7.7** ^	**7.3** ^
Cadmium		**980**	<0.55	<0.53	<0.57	<0.58	<0.58	<0.61	<0.57	<0.62	<0.62	<0.60	<0.56
Cobalt		**350**	**8.5**	**9.2**	**9.4**	**9.2**	**9.9**	**9.6**	**9.6**	**9.6**	**9.8**	**10.6**	**9.4**
Lead		**800**	**9.5**	**13.8**	**7.5**	**16.2**	**8.8**	**11.2**	**5.9**	**12.4**	**5.9**	**6.7**	**7.0**
Mercury		**46**	<0.22	<0.23	<0.25	<0.23	<0.24	<0.26	<0.25	<0.25	<0.28	<0.25	<0.27
Molybdenum		**5,800**	<1.1	<1.1	<1.1	<1.2	<1.2	<1.2	<1.1	**1.8**	<1.2	<1.2	<1.1
Nickel		**22,000**	**12.8**	**10.2**	**12.9**	**13.3**	**14.7**	**14.6**	**14.9**	**18.6**	**13.0**	**15.3**	**13.5**
Selenium		**5,800**	<1.1	<1.1	<1.1	<1.2	<1.2	<1.2	<1.1	<1.2	<1.2	<1.2	<1.1
Zinc		**350,000**	**47.7**	**48.9**	**44.5**	**56.6**	**49.8**	**67.8**	**44.8**	**330**	**48.4**	**51.1**	**46.6**
NITROGEN AND NITRATE VIA USEPA METHODS 351.2/353.2													
Nitrogen, Nitrate		**1,900,000**	<5.9	<5.6	**14.1**	**26.4**	**8.5**	**9.1**	**10.2**	**42.8**	**56.7**	**60.7**	**11.9**
Nitrogen, Kjeldahl, Total		**NE**	**167**	**302**	**172**	**430**	**218**	**188**	**165**	**514**	**117**	**167**	**162**

Abbreviations & Notes

USEPA = United States Environmental Protection Agency

NE = Not Established; SLs = Screening Levels

All results and USEPA Screening Levels are reported in milligrams per kilogram (mg/kg).

The following denote the symbol and color of screening level exceedances:

^ = At or Above USEPA Industrial Soil Regional SLs

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA
FROST BROWN TODD, LLC

	Sample Description:	USEPA MAXIMUM CONTAMINANT LEVELS (MCLs) (^)	SB-9-GW	SB-10-GW	SB-11-GW
	Sample ID (Depth - ft.):		7-10	7-10	7-10
	Sample Date:		02/08/2018	02/08/2018	02/08/2018
TOTAL METALS VIA USEPA METHODS 6010/7471					
Arsenic		**10**	**373** ^	**29.5** ^	<10.0
Cadmium		**5**	**2.9**	<2.0	<2.0
Cobalt		**NE**	**438**	**23.5**	<10.0
Lead		**15**	**374** ^	<10.0	<10.0
Mercury		**2**	<2.0	<2.0	<2.0
Molybdenum		**NE**	**92.4**	**194**	**110**
Nickel		**NE**	**736**	**146**	**11.5**
Selenium		**50**	**12.7**	<10.0	<10.0
Zinc		**NE**	**2,650**	<20.0	<20.0
DISSOLVED METALS VIA USEPA METHODS 6010/7471					
Arsenic, Dissolved		**10**	**21.4** ^	**28.2** ^	**10.9** ^
Cadmium, Dissolved		**5**	<2.0	<2.0	<2.0
Cobalt, Dissolved		**NE**	**14.6**	**22.9**	<10.0
Lead, Dissolved		**15**	<10.0	<10.0	<10.0
Mercury, Dissolved		**2**	<2.0	<2.0	<2.0
Molybdenum, Dissolved		**NE**	**122**	**194**	**110**
Nickel, Dissolved		**NE**	**61.8**	**146**	**10.5**
Selenium, Dissolved		**50**	<10.0	<10.0	<10.0
Zinc, Dissolved		**NE**	<20.0	<20.0	<20.0
NITROGEN VIA USEPA METHODS 351.2/353.2 (reported in mg/L)					
Nitrogen, Kjeldahl, Total		**NE**	**2.6**	<0.5	<0.5
Nitrogen, NO2 + NO3		**10**	**170** ^	**241** ^	**121** ^
Nitrogen, Nitrate		**10**	**170** ^	**240** ^	**120** ^

Abbreviations & Notes

USEPA = United States Environmental Protection Agency

NE = Not Established

The following denote the symbol and color of screening level exceedances:

^ = At or Above USEPA Maximum Contaminant Levels

Results and USEPA Screening Levels are reported in micrograms per liter (µg/L) except where noted otherwise.

ATTACHMENT A

Soil Boring Logs

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SB-1

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-1	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0							
1	**SANDY GRAVEL**	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	**SILTY SAND**	Brown, fine grained, medium dense, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-2

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-2	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0	SANDY GRAVEL	Brown, fine grained, loose, well graded, moist	NA	NA			Composite
2	SILTY SAND	Brown/grey, fine grained, desnse, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-3

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-3	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0							
1	**SANDY GRAVEL**	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	**SILTY SAND**	Brown, fine grained, medium dense, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-4

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-4	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0	SANDY GRAVEL	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	SILTY SAND	Brown, fine grained, medium dense, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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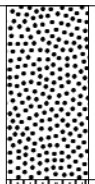
SB-5

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-5	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0		Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
1	**SANDY GRAVEL**						
2			NA	NA			
3	**SILTY SAND**	Brown, fine grained, medium dense, poorly graded, moist					End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-6

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-6	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0							
1	**SANDY GRAVEL**	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	**SILTY SAND**	Brown, fine grained, medium dense, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-7

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-7	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0							
1	**SANDY GRAVEL**	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	**SILTY SAND**	Brown, fine grained, dense, poorly graded, wet	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-8

Project Number:	JS0086.741	Date Drilled:	2/7/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	NA
Drilling Method:	Hand Auger	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	NA
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-8	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0							
1	**SANDY GRAVEL**	Brown, coarse grained, loose, well graded, moist	NA	NA			Composite
2	**SILTY SAND**	Brown, fine grained, dense, poorly graded, moist	NA	NA			
3							End of boring at 3' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-9

Project Number:	JS0086.741	Date Drilled:	2/8/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	ESN
Drilling Method:	Geoprobe	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	Peristaltic Pump
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-9	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0–1.5	GRAVELLY SAND	Brown, coarse grained, loose, well graded, moist	70	NA			
1.5–4	SILTY SAND	Brown, fine grained, poorly graded, medium dense, moist		NA			
4–7		Wet		NA		4–6	Soil sample SB-9 collected at 4-6'
7–10		Saturated	90	NA	7–9		Groundwater sample SB-9 collected at 7-9'
				NA			
10							End of boring at 10' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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SB-10

Project Number:	JS0086.741	Date Drilled:	2/8/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	ESN
Drilling Method:	Geoprobe	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	Peristaltic Pump
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-10	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0–1	SANDY GRAVEL	Gravel fill		NA			
1–5	SILTY SAND	Brown, fine grained, medium dense, poorly graded, moist	60	NA NA NA		■	Soil sample SB-10 collected at 4-6'
5–7	SILTY SAND	Wet		NA			
7–10	SILTY SAND	Saturated	80	NA NA	▤	▤	Groundwater sample SB-10 collected at 7-10'
10							End of boring at 10' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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tnestler@...
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August Mack ENVIRONMENTAL

SB-11

Project Number:	JS0086.741	Date Drilled:	2/8/2018
Client Name:	Frost Brown Todd	Personnel:	Conner Hedderick
Project Name:	Sunnyside	Driller:	ESN
Drilling Method:	Geoprobe	Driller License:	NA
Site Address:	101 S. 1st Street, Sunnyside, WA	GW Sample Method:	Peristaltic Pump
UTM Northing*:	NA	UTM Easting*:	NA
Boring Location:	SB-11	Surface Elevation*:	NA

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	GW Sample Interval	Soil Sample Interval	Comments
0–2	SANDY GRAVEL	Brown, well graded, loose, coarse grained, moist		NA			
2–3				NA			
3–4	SILTY SAND	Brown, poorly graded, fine grained, medium dense, moist	60	NA			
4–5				NA			Soil sample SB-11 collected at 4-6'
5–6							
6–7				NA			
7–8		Saturated	30				Groundwater sample collected at 7-10'
8–9				NA			
9–10							
10							End of boring at 10' (terminated)

* = UTM Northing, Easting, and Surface Elevation are estimated, unless specified in the report to have been surveyed.

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ATTACHMENT B

Field Procedures

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SOIL SAMPLING PROCEDURES

Soil Sampling Activities

Soil borings were advanced utilizing a hand auger and/or shovel for the shallow borings (less than 3 f t bg). Deeper soil borings were advanced utilizing a Geoprobe® Direct Push Sampling System (Geoprobe®).

Soil samples from the shallow borings were collected continuously by auguring the stainless-steel sample barrel of the hand auger into the subsurface and/or removing surface cover with a shovel. Soils were collected and classified in one (1)-foot intervals. The soils from each boring location were then homogenized in a large, clean Ziploc® bag and composited into one (1) sample per boring location.

Soil samples from the deeper borings were advanced with a Geoprobe® and soils were collected continuously from each location by pushing a 4-foot long nickel-plated core barrel sampler attached to the end of boring rods. The sampler was recovered with a soil sample collected within an acetate liner inside the barrel. A new acetate liner was used for each sample collected. All reusable equipment that contacted the soil samples was decontaminated with a Liquinox® solution and rinsed with water between each sample collection. Upon retrieving the 4-foot sections of soil, the samples were divided into 2-foot sections and lithologically classified. The 2-foot interval from directly above he soil-groundwater interface was selected and submitted for laboratory analysis

All selected soil samples were transferred to clean, labeled sample containers (provided by the laboratory) and placed on ice in a cooler for preservation in the field. Samples were submitted to Pace Analytical for laboratory analysis of nitrate-nitrogen (U.S. EPA analytical method 353.2), TKN (U.S. EPA analytical method 351.2), arsenic, cadmium, cobalt, lead, molybdenum, nickel, selenium, zinc (U.S. EPA analytical method 6010) and mercury analysis (U.S. EPA method 7470).

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ATTACHMENT C

Laboratory Results

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

February 14, 2018

Shannon Landrum
August Mack Environmental Consultants
7830 N. Central Drive
Suite B
Lewis Center, OH 43035

RE: Project: Sunnyside, WA
Pace Project No.: 50189870

Dear Shannon Landrum:
Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report: reporting an analysis of molybdenum by 6010 at 5x dilution instead of 10x dilution originally reported/021418kj

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

Sincerely,

Kelly M Jones

Kelly Jones
kelly.jones@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Emily Rastorfer, August Mack Environmental Consultants
Andy Tennyson, August Mack Environmental Consultants

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CERTIFICATIONS

Project:	Sunnyside, WA
Pace Project No.:	50189870

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 003971
Indiana Certification #: C-49-06
Kansas/NELAP Certification #:E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #:98019
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2017-124
Texas Certification #: T104704355-18-12
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50189870001	**SB-1-0-3**	Solid	02/07/18 16:00	02/09/18 09:10
50189870002	**SB-2-0-3**	Solid	02/07/18 11:50	02/09/18 09:10
50189870003	**SB-3-0-3**	Solid	02/07/18 12:50	02/09/18 09:10
50189870004	**SB-4-0-3**	Solid	02/07/18 13:30	02/09/18 09:10
50189870005	**SB-5-0-3**	Solid	02/07/18 14:00	02/09/18 09:10
50189870006	**SB-6-0-3**	Solid	02/07/18 14:30	02/09/18 09:10
50189870007	**SB-7-0-3**	Solid	02/07/18 15:00	02/09/18 09:10
50189870008	**SB-8-0-3**	Solid	02/07/18 15:30	02/09/18 09:10
50189870009	**SB-9-4-6**	Solid	02/08/18 10:30	02/09/18 09:10
50189870010	**SB-10-4-6**	Solid	02/08/18 10:50	02/09/18 09:10
50189870011	**SB-11-4-6**	Solid	02/08/18 11:30	02/09/18 09:10
50189870012	**SB-9-GW-7-10**	Water	02/08/18 10:30	02/09/18 09:10
50189870013	**SB-10-GW-7-10**	Water	02/08/18 10:55	02/09/18 09:10
50189870014	**SB-11-GW-7-10**	Water	02/08/18 11:35	02/09/18 09:10

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SAMPLE ANALYTE COUNT

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab ID	Sample ID	Method	Analysts	Analytes Reported
50189870001	**SB-1-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870002	**SB-2-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870003	**SB-3-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870004	**SB-4-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870005	**SB-5-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870006	**SB-6-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870007	**SB-7-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870008	**SB-8-0-3**	EPA 6010	MJC	8
		EPA 7471	ILP	1

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SAMPLE ANALYTE COUNT

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870009	**SB-9-4-6**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870010	**SB-10-4-6**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870011	**SB-11-4-6**	EPA 6010	MJC	8
		EPA 7471	ILP	1
		SM 2540G	SCM	1
		EPA 351.2	ZM	1
		EPA 353.2	ZM	1
50189870012	**SB-9-GW-7-10**	EPA 6010	JPK	8
		EPA 6010	JPK	8
		EPA 7470	JGJ	1
		EPA 7470	JGJ	1
		EPA 351.2	ZM	1
		EPA 353.2	SLB	2
50189870013	**SB-10-GW-7-10**	EPA 6010	JPK	8
		EPA 6010	JPK	8
		EPA 7470	JGJ	1
		EPA 7470	JGJ	1
		EPA 351.2	ZM	1
		EPA 353.2	SLB	2
50189870014	**SB-11-GW-7-10**	EPA 6010	JPK	8
		EPA 6010	JPK	8
		EPA 7470	JGJ	1
		EPA 7470	JGJ	1
		EPA 351.2	ZM	1
		EPA 353.2	SLB	2

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SUMMARY OF DETECTION

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50189870001	**SB-1-0-3**					
EPA 6010	Arsenic	5.0	mg/kg	1.1	02/12/18 07:57	
EPA 6010	Cobalt	8.5	mg/kg	1.1	02/12/18 07:57	
EPA 6010	Lead	9.5	mg/kg	1.1	02/12/18 07:57	
EPA 6010	Nickel	12.8	mg/kg	1.1	02/12/18 07:57	
EPA 6010	Zinc	47.7	mg/kg	1.1	02/12/18 07:57	
SM 2540G	Percent Moisture	14.9	%	0.10	02/12/18 09:24	
EPA 351.2	Nitrogen, Kjeldahl, Total	167	mg/kg	57.0	02/13/18 14:45	
50189870002	**SB-2-0-3**					
EPA 6010	Arsenic	3.8	mg/kg	1.1	02/12/18 08:00	
EPA 6010	Cobalt	9.2	mg/kg	1.1	02/12/18 08:00	
EPA 6010	Lead	13.8	mg/kg	1.1	02/12/18 08:00	
EPA 6010	Nickel	10.2	mg/kg	1.1	02/12/18 08:00	
EPA 6010	Zinc	48.9	mg/kg	1.1	02/12/18 08:00	
SM 2540G	Percent Moisture	10.7	%	0.10	02/12/18 09:24	
EPA 351.2	Nitrogen, Kjeldahl, Total	302	mg/kg	55.3	02/13/18 14:48	
50189870003	**SB-3-0-3**					
EPA 6010	Arsenic	4.4	mg/kg	1.1	02/12/18 08:02	
EPA 6010	Cobalt	9.4	mg/kg	1.1	02/12/18 08:02	
EPA 6010	Lead	7.5	mg/kg	1.1	02/12/18 08:02	
EPA 6010	Nickel	12.9	mg/kg	1.1	02/12/18 08:02	
EPA 6010	Zinc	44.5	mg/kg	1.1	02/12/18 08:02	
SM 2540G	Percent Moisture	21.0	%	0.10	02/12/18 09:24	
EPA 351.2	Nitrogen, Kjeldahl, Total	172	mg/kg	61.2	02/13/18 14:49	
EPA 353.2	Nitrogen, Nitrate	14.1	mg/kg	6.3	02/13/18 16:45	N2
50189870004	**SB-4-0-3**					
EPA 6010	Arsenic	4.6	mg/kg	1.2	02/12/18 08:05	
EPA 6010	Cobalt	9.2	mg/kg	1.2	02/12/18 08:05	
EPA 6010	Lead	16.2	mg/kg	1.2	02/12/18 08:05	
EPA 6010	Nickel	13.3	mg/kg	1.2	02/12/18 08:05	
EPA 6010	Zinc	56.6	mg/kg	1.2	02/12/18 08:05	
SM 2540G	Percent Moisture	16.1	%	0.10	02/12/18 09:24	
EPA 351.2	Nitrogen, Kjeldahl, Total	430	mg/kg	59.6	02/13/18 14:50	
EPA 353.2	Nitrogen, Nitrate	26.4	mg/kg	5.9	02/13/18 16:46	N2
50189870005	**SB-5-0-3**					
EPA 6010	Arsenic	5.2	mg/kg	1.2	02/12/18 08:07	
EPA 6010	Cobalt	9.9	mg/kg	1.2	02/12/18 08:07	
EPA 6010	Lead	8.8	mg/kg	1.2	02/12/18 08:07	
EPA 6010	Nickel	14.7	mg/kg	1.2	02/12/18 08:07	
EPA 6010	Zinc	49.8	mg/kg	1.2	02/12/18 08:07	
SM 2540G	Percent Moisture	15.4	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	218	mg/kg	58.4	02/13/18 14:51	
EPA 353.2	Nitrogen, Nitrate	8.5	mg/kg	5.9	02/13/18 16:47	N2
50189870006	**SB-6-0-3**					
EPA 6010	Arsenic	5.0	mg/kg	1.2	02/12/18 08:23	

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SUMMARY OF DETECTION

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50189870006	**SB-6-0-3**					
EPA 6010	Cobalt	9.6	mg/kg	1.2	02/12/18 08:23	
EPA 6010	Lead	11.2	mg/kg	1.2	02/12/18 08:23	
EPA 6010	Nickel	14.6	mg/kg	1.2	02/12/18 08:23	
EPA 6010	Zinc	67.8	mg/kg	1.2	02/12/18 08:23	
SM 2540G	Percent Moisture	18.3	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	188	mg/kg	59.5	02/13/18 14:52	
EPA 353.2	Nitrogen, Nitrate	9.1	mg/kg	6.1	02/13/18 16:51	N2
50189870007	**SB-7-0-3**					
EPA 6010	Arsenic	4.3	mg/kg	1.1	02/12/18 08:26	
EPA 6010	Cobalt	9.6	mg/kg	1.1	02/12/18 08:26	
EPA 6010	Lead	5.9	mg/kg	1.1	02/12/18 08:26	
EPA 6010	Nickel	14.9	mg/kg	1.1	02/12/18 08:26	
EPA 6010	Zinc	44.8	mg/kg	1.1	02/12/18 08:26	
SM 2540G	Percent Moisture	18.6	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	165	mg/kg	60.3	02/13/18 14:54	
EPA 353.2	Nitrogen, Nitrate	10.2	mg/kg	6.1	02/13/18 16:52	N2
50189870008	**SB-8-0-3**					
EPA 6010	Arsenic	8.0	mg/kg	1.2	02/12/18 08:28	
EPA 6010	Cobalt	9.6	mg/kg	1.2	02/12/18 08:28	
EPA 6010	Lead	12.4	mg/kg	1.2	02/12/18 08:28	
EPA 6010	Molybdenum	1.8	mg/kg	1.2	02/12/18 08:28	
EPA 6010	Nickel	18.6	mg/kg	1.2	02/12/18 08:28	
EPA 6010	Zinc	330	mg/kg	1.2	02/12/18 08:28	
SM 2540G	Percent Moisture	20.5	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	514	mg/kg	60.7	02/13/18 14:55	
EPA 353.2	Nitrogen, Nitrate	42.8	mg/kg	6.3	02/13/18 16:53	N2
50189870009	**SB-9-4-6**					
EPA 6010	Arsenic	10.1	mg/kg	1.2	02/12/18 08:31	
EPA 6010	Cobalt	9.8	mg/kg	1.2	02/12/18 08:31	
EPA 6010	Lead	5.9	mg/kg	1.2	02/12/18 08:31	
EPA 6010	Nickel	13.0	mg/kg	1.2	02/12/18 08:31	
EPA 6010	Zinc	48.4	mg/kg	1.2	02/12/18 08:31	
SM 2540G	Percent Moisture	23.8	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	117	mg/kg	63.6	02/13/18 14:56	
EPA 353.2	Nitrogen, Nitrate	56.7	mg/kg	6.6	02/13/18 16:54	N2
50189870010	**SB-10-4-6**					
EPA 6010	Arsenic	7.7	mg/kg	1.2	02/12/18 08:33	
EPA 6010	Cobalt	10.6	mg/kg	1.2	02/12/18 08:33	
EPA 6010	Lead	6.7	mg/kg	1.2	02/12/18 08:33	
EPA 6010	Nickel	15.3	mg/kg	1.2	02/12/18 08:33	
EPA 6010	Zinc	51.1	mg/kg	1.2	02/12/18 08:33	
SM 2540G	Percent Moisture	24.4	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	167	mg/kg	65.1	02/13/18 14:57	
EPA 353.2	Nitrogen, Nitrate	60.7	mg/kg	6.6	02/13/18 16:55	N2

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SUMMARY OF DETECTION

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50189870011	**SB-11-4-6**					
EPA 6010	Arsenic	7.3	mg/kg	1.1	02/12/18 08:36	
EPA 6010	Cobalt	9.4	mg/kg	1.1	02/12/18 08:36	
EPA 6010	Lead	7.0	mg/kg	1.1	02/12/18 08:36	
EPA 6010	Nickel	13.5	mg/kg	1.1	02/12/18 08:36	
EPA 6010	Zinc	46.6	mg/kg	1.1	02/12/18 08:36	
SM 2540G	Percent Moisture	24.3	%	0.10	02/12/18 09:25	
EPA 351.2	Nitrogen, Kjeldahl, Total	162	mg/kg	65.5	02/13/18 14:58	
EPA 353.2	Nitrogen, Nitrate	11.9	mg/kg	6.6	02/13/18 16:56	N2
50189870012	**SB-9-GW-7-10**					
EPA 6010	Arsenic	373	ug/L	50.0	02/12/18 23:22	
EPA 6010	Cadmium	2.9	ug/L	2.0	02/12/18 22:58	
EPA 6010	Cobalt	438	ug/L	50.0	02/12/18 23:22	
EPA 6010	Lead	374	ug/L	50.0	02/12/18 23:22	
EPA 6010	Molybdenum	92.4	ug/L	50.0	02/12/18 23:22	
EPA 6010	Nickel	736	ug/L	50.0	02/12/18 23:22	
EPA 6010	Selenium	12.7	ug/L	10.0	02/12/18 22:58	
EPA 6010	Zinc	2650	ug/L	100	02/12/18 23:22	
EPA 6010	Arsenic, Dissolved	21.4	ug/L	10.0	02/12/18 22:42	
EPA 6010	Cobalt, Dissolved	14.6	ug/L	10.0	02/12/18 22:42	
EPA 6010	Molybdenum, Dissolved	122	ug/L	10.0	02/12/18 22:42	
EPA 6010	Nickel, Dissolved	61.8	ug/L	10.0	02/12/18 22:42	
EPA 351.2	Nitrogen, Kjeldahl, Total	2.6	mg/L	0.50	02/13/18 12:39	
EPA 353.2	Nitrogen, NO2 plus NO3	170	mg/L	10.0	02/09/18 13:06	
EPA 353.2	Nitrogen, Nitrate	170	mg/L	10.0	02/09/18 13:06	
50189870013	**SB-10-GW-7-10**					
EPA 6010	Arsenic	29.5	ug/L	10.0	02/12/18 23:01	
EPA 6010	Cobalt	23.5	ug/L	10.0	02/12/18 23:01	
EPA 6010	Molybdenum	194	ug/L	10.0	02/12/18 23:01	
EPA 6010	Nickel	146	ug/L	10.0	02/12/18 23:01	
EPA 6010	Arsenic, Dissolved	28.2	ug/L	10.0	02/12/18 22:44	
EPA 6010	Cobalt, Dissolved	22.9	ug/L	10.0	02/12/18 22:44	
EPA 6010	Molybdenum, Dissolved	194	ug/L	10.0	02/12/18 22:44	
EPA 6010	Nickel, Dissolved	146	ug/L	10.0	02/12/18 22:44	
EPA 353.2	Nitrogen, NO2 plus NO3	241	mg/L	10.0	02/09/18 13:07	
EPA 353.2	Nitrogen, Nitrate	240	mg/L	10.0	02/09/18 13:07	
50189870014	**SB-11-GW-7-10**					
EPA 6010	Molybdenum	110	ug/L	10.0	02/12/18 23:03	
EPA 6010	Nickel	11.5	ug/L	10.0	02/12/18 23:03	
EPA 6010	Arsenic, Dissolved	10.9	ug/L	10.0	02/12/18 22:47	
EPA 6010	Molybdenum, Dissolved	110	ug/L	10.0	02/12/18 22:47	
EPA 6010	Nickel, Dissolved	10.5	ug/L	10.0	02/12/18 22:47	
EPA 353.2	Nitrogen, NO2 plus NO3	121	mg/L	10.0	02/09/18 13:08	
EPA 353.2	Nitrogen, Nitrate	120	mg/L	10.0	02/09/18 13:08	

REPORT OF LABORATORY ANALYSIS

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Tim Nestler
wilburellis.com
Jul 23, 2019 15:30

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-1-0-3 **Lab ID: 50189870001** Collected: 02/07/18 16:00 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**5.0**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7440-38-2	
Cadmium	ND	mg/kg	0.55	1	02/10/18 09:25	02/12/18 07:57	7440-43-9	
Cobalt	**8.5**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7440-48-4	
Lead	**9.5**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7439-92-1	
Molybdenum	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7439-98-7	
Nickel	**12.8**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7440-02-0	
Selenium	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7782-49-2	
Zinc	**47.7**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 07:57	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.22	1	02/09/18 22:14	02/12/18 11:39	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**14.9**	%	0.10	1		02/12/18 09:24		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**167**	mg/kg	57.0	1	02/12/18 08:15	02/13/18 14:45	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/kg	5.9	1	02/12/18 12:15	02/13/18 16:40	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-2-0-3 **Lab ID: 50189870002** Collected: 02/07/18 11:50 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**3.8**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7440-38-2	
Cadmium	ND	mg/kg	0.53	1	02/10/18 09:25	02/12/18 08:00	7440-43-9	
Cobalt	**9.2**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7440-48-4	
Lead	**13.8**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7439-92-1	
Molybdenum	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7439-98-7	
Nickel	**10.2**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7440-02-0	
Selenium	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7782-49-2	
Zinc	**48.9**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:00	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.23	1	02/09/18 22:14	02/12/18 11:53	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**10.7**	%	0.10	1		02/12/18 09:24		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**302**	mg/kg	55.3	1	02/12/18 08:15	02/13/18 14:48	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/kg	5.6	1	02/12/18 12:15	02/13/18 16:41	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-3-0-3 **Lab ID: 50189870003** Collected: 02/07/18 12:50 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.4**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7440-38-2	
Cadmium	ND	mg/kg	0.57	1	02/10/18 09:25	02/12/18 08:02	7440-43-9	
Cobalt	**9.4**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7440-48-4	
Lead	**7.5**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7439-92-1	
Molybdenum	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7439-98-7	
Nickel	**12.9**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7440-02-0	
Selenium	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7782-49-2	
Zinc	**44.5**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:02	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.25	1	02/09/18 22:14	02/12/18 11:56	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**21.0**	%	0.10	1		02/12/18 09:24		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**172**	mg/kg	61.2	1	02/12/18 08:15	02/13/18 14:49	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**14.1**	mg/kg	6.3	1	02/12/18 12:15	02/13/18 16:45	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-4-0-3 **Lab ID: 50189870004** Collected: 02/07/18 13:30 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7440-38-2	
Cadmium	ND	mg/kg	0.58	1	02/10/18 09:25	02/12/18 08:05	7440-43-9	
Cobalt	**9.2**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7440-48-4	
Lead	**16.2**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7439-92-1	
Molybdenum	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7439-98-7	
Nickel	**13.3**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7782-49-2	
Zinc	**56.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:05	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.23	1	02/09/18 22:14	02/12/18 11:58	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**16.1**	%	0.10	1		02/12/18 09:24		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**430**	mg/kg	59.6	1	02/12/18 08:15	02/13/18 14:50	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**26.4**	mg/kg	5.9	1	02/12/18 12:15	02/13/18 16:46	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

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Tim Nestler
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Jul 23, 2019 15:30

Pace Analytical Services, LLC
7726 Moller Road
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-5-0-3 **Lab ID: 50189870005** Collected: 02/07/18 14:00 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**5.2**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7440-38-2	
Cadmium	ND	mg/kg	0.58	1	02/10/18 09:25	02/12/18 08:07	7440-43-9	
Cobalt	**9.9**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7440-48-4	
Lead	**8.8**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7439-92-1	
Molybdenum	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7439-98-7	
Nickel	**14.7**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7782-49-2	
Zinc	**49.8**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:07	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.24	1	02/09/18 22:14	02/12/18 12:01	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**15.4**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**218**	mg/kg	58.4	1	02/12/18 08:15	02/13/18 14:51	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**8.5**	mg/kg	5.9	1	02/12/18 12:15	02/13/18 16:47	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-6-0-3 **Lab ID: 50189870006** Collected: 02/07/18 14:30 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**5.0**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7440-38-2	
Cadmium	ND	mg/kg	0.61	1	02/10/18 09:25	02/12/18 08:23	7440-43-9	
Cobalt	**9.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7440-48-4	
Lead	**11.2**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7439-92-1	
Molybdenum	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7439-98-7	
Nickel	**14.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7782-49-2	
Zinc	**67.8**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:23	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.26	1	02/09/18 22:14	02/12/18 12:03	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**18.3**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**188**	mg/kg	59.5	1	02/12/18 08:15	02/13/18 14:52	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**9.1**	mg/kg	6.1	1	02/12/18 12:15	02/13/18 16:51	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-7-0-3 **Lab ID: 50189870007** Collected: 02/07/18 15:00 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.3**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7440-38-2	
Cadmium	ND	mg/kg	0.57	1	02/10/18 09:25	02/12/18 08:26	7440-43-9	
Cobalt	**9.6**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7440-48-4	
Lead	**5.9**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7439-92-1	
Molybdenum	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7439-98-7	
Nickel	**14.9**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7440-02-0	
Selenium	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7782-49-2	
Zinc	**44.8**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:26	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.25	1	02/09/18 22:14	02/12/18 12:06	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**18.6**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**165**	mg/kg	60.3	1	02/12/18 08:15	02/13/18 14:54	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**10.2**	mg/kg	6.1	1	02/12/18 12:15	02/13/18 16:52	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Indianapolis, IN 46268
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-8-0-3 **Lab ID: 50189870008** Collected: 02/07/18 15:30 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**8.0**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7440-38-2	
Cadmium	ND	mg/kg	0.62	1	02/10/18 09:25	02/12/18 08:28	7440-43-9	
Cobalt	**9.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7440-48-4	
Lead	**12.4**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7439-92-1	
Molybdenum	**1.8**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7439-98-7	
Nickel	**18.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7782-49-2	
Zinc	**330**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:28	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.25	1	02/09/18 22:14	02/12/18 12:08	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**20.5**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**514**	mg/kg	60.7	1	02/12/18 08:15	02/13/18 14:55	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**42.8**	mg/kg	6.3	1	02/12/18 12:15	02/13/18 16:53	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-9-4-6 **Lab ID: 50189870009** Collected: 02/08/18 10:30 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**10.1**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7440-38-2	
Cadmium	ND	mg/kg	0.62	1	02/10/18 09:25	02/12/18 08:31	7440-43-9	
Cobalt	**9.8**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7440-48-4	
Lead	**5.9**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7439-92-1	
Molybdenum	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7439-98-7	
Nickel	**13.0**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7782-49-2	
Zinc	**48.4**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:31	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.28	1	02/09/18 22:14	02/12/18 12:11	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**23.8**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**117**	mg/kg	63.6	1	02/12/18 08:15	02/13/18 14:56	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**56.7**	mg/kg	6.6	1	02/12/18 12:15	02/13/18 16:54	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-10-4-6 **Lab ID: 50189870010** Collected: 02/08/18 10:50 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**7.7**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7440-38-2	
Cadmium	ND	mg/kg	0.60	1	02/10/18 09:25	02/12/18 08:33	7440-43-9	
Cobalt	**10.6**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7440-48-4	
Lead	**6.7**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7439-92-1	
Molybdenum	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7439-98-7	
Nickel	**15.3**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7440-02-0	
Selenium	ND	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7782-49-2	
Zinc	**51.1**	mg/kg	1.2	1	02/10/18 09:25	02/12/18 08:33	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.25	1	02/09/18 22:14	02/12/18 12:13	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**24.4**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**167**	mg/kg	65.1	1	02/12/18 08:15	02/13/18 14:57	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**60.7**	mg/kg	6.6	1	02/12/18 12:15	02/13/18 16:55	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-11-4-6 **Lab ID: 50189870011** Collected: 02/08/18 11:30 Received: 02/09/18 09:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**7.3**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7440-38-2	
Cadmium	ND	mg/kg	0.56	1	02/10/18 09:25	02/12/18 08:36	7440-43-9	
Cobalt	**9.4**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7440-48-4	
Lead	**7.0**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7439-92-1	
Molybdenum	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7439-98-7	
Nickel	**13.5**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7440-02-0	
Selenium	ND	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7782-49-2	
Zinc	**46.6**	mg/kg	1.1	1	02/10/18 09:25	02/12/18 08:36	7440-66-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	ND	mg/kg	0.27	1	02/09/18 22:14	02/12/18 12:20	7439-97-6	
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	**24.3**	%	0.10	1		02/12/18 09:25		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**162**	mg/kg	65.5	1	02/12/18 08:15	02/13/18 14:58	7727-37-9	
353.2 Nitrogen, NO2/NO3	Analytical Method: EPA 353.2 Preparation Method: EPA 353.2							
Nitrogen, Nitrate	**11.9**	mg/kg	6.6	1	02/12/18 12:15	02/13/18 16:56	14797-55-8	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-9-GW-7-10 **Lab ID: 50189870012** Collected: 02/08/18 10:30 Received: 02/09/18 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**373**	ug/L	50.0	5	02/12/18 05:47	02/12/18 23:22	7440-38-2	
Cadmium	**2.9**	ug/L	2.0	1	02/12/18 05:47	02/12/18 22:58	7440-43-9	
Cobalt	**438**	ug/L	50.0	5	02/12/18 05:47	02/12/18 23:22	7440-48-4	
Lead	**374**	ug/L	50.0	5	02/12/18 05:47	02/12/18 23:22	7439-92-1	
Molybdenum	**92.4**	ug/L	50.0	5	02/12/18 05:47	02/12/18 23:22	7439-98-7	
Nickel	**736**	ug/L	50.0	5	02/12/18 05:47	02/12/18 23:22	7440-02-0	
Selenium	**12.7**	ug/L	10.0	1	02/12/18 05:47	02/12/18 22:58	7782-49-2	
Zinc	**2650**	ug/L	100	5	02/12/18 05:47	02/12/18 23:22	7440-66-6	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic, Dissolved	**21.4**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7440-38-2	
Cadmium, Dissolved	ND	ug/L	2.0	1	02/12/18 12:31	02/12/18 22:42	7440-43-9	
Cobalt, Dissolved	**14.6**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7440-48-4	
Lead, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7439-92-1	
Molybdenum, Dissolved	**122**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7439-98-7	
Nickel, Dissolved	**61.8**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7440-02-0	
Selenium, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:42	7782-49-2	
Zinc, Dissolved	ND	ug/L	20.0	1	02/12/18 12:31	02/12/18 22:42	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	2.0	1	02/12/18 11:06	02/12/18 17:07	7439-97-6	
7470 Mercury, Lab Filtered	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury, Dissolved	ND	ug/L	2.0	1	02/12/18 11:00	02/12/18 18:57	7439-97-6	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**2.6**	mg/L	0.50	1	02/12/18 08:15	02/13/18 12:39	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	**170**	mg/L	10.0	100		02/09/18 13:06		
Nitrogen, Nitrate	**170**	mg/L	10.0	100		02/09/18 13:06	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-10-GW-7-10 **Lab ID: 50189870013** Collected: 02/08/18 10:55 Received: 02/09/18 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**29.5**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7440-38-2	
Cadmium	ND	ug/L	2.0	1	02/12/18 05:47	02/12/18 23:01	7440-43-9	
Cobalt	**23.5**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7440-48-4	
Lead	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7439-92-1	
Molybdenum	**194**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7439-98-7	
Nickel	**146**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7440-02-0	
Selenium	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:01	7782-49-2	
Zinc	ND	ug/L	20.0	1	02/12/18 05:47	02/12/18 23:01	7440-66-6	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic, Dissolved	**28.2**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7440-38-2	
Cadmium, Dissolved	ND	ug/L	2.0	1	02/12/18 12:31	02/12/18 22:44	7440-43-9	
Cobalt, Dissolved	**22.9**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7440-48-4	
Lead, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7439-92-1	
Molybdenum, Dissolved	**194**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7439-98-7	
Nickel, Dissolved	**146**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7440-02-0	
Selenium, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:44	7782-49-2	
Zinc, Dissolved	ND	ug/L	20.0	1	02/12/18 12:31	02/12/18 22:44	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	2.0	1	02/12/18 11:06	02/12/18 17:09	7439-97-6	
7470 Mercury, Lab Filtered	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury, Dissolved	ND	ug/L	2.0	1	02/12/18 11:00	02/12/18 18:59	7439-97-6	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND	mg/L	0.50	1	02/12/18 08:15	02/13/18 12:40	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	**241**	mg/L	10.0	100		02/09/18 13:07		
Nitrogen, Nitrate	**240**	mg/L	10.0	100		02/09/18 13:07	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Sunnyside, WA
Pace Project No.: 50189870

Sample: SB-11-GW-7-10 **Lab ID: 50189870014** Collected: 02/08/18 11:35 Received: 02/09/18 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7440-38-2	
Cadmium	ND	ug/L	2.0	1	02/12/18 05:47	02/12/18 23:03	7440-43-9	
Cobalt	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7440-48-4	
Lead	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7439-92-1	
Molybdenum	**110**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7439-98-7	
Nickel	**11.5**	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7440-02-0	
Selenium	ND	ug/L	10.0	1	02/12/18 05:47	02/12/18 23:03	7782-49-2	
Zinc	ND	ug/L	20.0	1	02/12/18 05:47	02/12/18 23:03	7440-66-6	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic, Dissolved	**10.9**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7440-38-2	
Cadmium, Dissolved	ND	ug/L	2.0	1	02/12/18 12:31	02/12/18 22:47	7440-43-9	
Cobalt, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7440-48-4	
Lead, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7439-92-1	
Molybdenum, Dissolved	**110**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7439-98-7	
Nickel, Dissolved	**10.5**	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7440-02-0	
Selenium, Dissolved	ND	ug/L	10.0	1	02/12/18 12:31	02/12/18 22:47	7782-49-2	
Zinc, Dissolved	ND	ug/L	20.0	1	02/12/18 12:31	02/12/18 22:47	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	2.0	1	02/12/18 11:06	02/12/18 17:11	7439-97-6	
7470 Mercury, Lab Filtered	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury, Dissolved	ND	ug/L	2.0	1	02/12/18 11:00	02/12/18 19:05	7439-97-6	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND	mg/L	0.50	1	02/12/18 08:15	02/13/18 12:41	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	**121**	mg/L	10.0	100		02/09/18 13:08		
Nitrogen, Nitrate	**120**	mg/L	10.0	100		02/09/18 13:08	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427265 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1969787 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	02/12/18 17:02	

LABORATORY CONTROL SAMPLE: 1969788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969789 1969790

Parameter	Units	50189769003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.9	95	98	75-125	4	20	

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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427350 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury Dissolved
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1970063 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	2.0	02/12/18 18:52	

LABORATORY CONTROL SAMPLE: 1970064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970065 1970066

Parameter	Units	50189870013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	4.4	4.4	87	88	75-125	1	20	

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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427267 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

METHOD BLANK: 1969797 Matrix: Solid
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.20	02/12/18 11:34	

LABORATORY CONTROL SAMPLE: 1969798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969799 1969800

Parameter	Units	50189870001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	ND	.61	.59	0.64	0.61	105	104	75-125	5	20	

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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427185 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

METHOD BLANK: 1969281 Matrix: Solid
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	02/12/18 07:53	
Cadmium	mg/kg	ND	0.50	02/12/18 07:53	
Cobalt	mg/kg	ND	1.0	02/12/18 07:53	
Lead	mg/kg	ND	1.0	02/12/18 07:53	
Molybdenum	mg/kg	ND	1.0	02/12/18 07:53	
Nickel	mg/kg	ND	1.0	02/12/18 07:53	
Selenium	mg/kg	ND	1.0	02/12/18 07:53	
Zinc	mg/kg	ND	1.0	02/12/18 07:53	

LABORATORY CONTROL SAMPLE: 1969282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.6	101	80-120	
Cadmium	mg/kg	50	49.3	99	80-120	
Cobalt	mg/kg	50	50.2	100	80-120	
Lead	mg/kg	50	48.4	97	80-120	
Molybdenum	mg/kg	50	52.2	104	80-120	
Nickel	mg/kg	50	51.4	103	80-120	
Selenium	mg/kg	50	50.8	102	80-120	
Zinc	mg/kg	50	49.8	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969283 1969284

Parameter	Units	50189870005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	5.2	55.7	59	55.6	58.7	91	91	75-125	5	20	
Cadmium	mg/kg	ND	55.7	59	50.3	53.3	90	90	75-125	6	20	
Cobalt	mg/kg	9.9	55.7	59	56.3	58.8	83	83	75-125	5	20	
Lead	mg/kg	8.8	55.7	59	54.3	56.1	82	80	75-125	3	20	
Molybdenum	mg/kg	ND	55.7	59	46.9	49.5	84	83	75-125	5	20	
Nickel	mg/kg	14.7	55.7	59	61.5	63.9	84	84	75-125	4	20	
Selenium	mg/kg	ND	55.7	59	50.1	52.9	89	89	75-125	5	20	
Zinc	mg/kg	49.8	55.7	59	98.6	100	88	85	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427298 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1969950 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	02/12/18 22:55	
Cadmium	ug/L	ND	2.0	02/12/18 22:55	
Cobalt	ug/L	ND	10.0	02/12/18 22:55	
Lead	ug/L	ND	10.0	02/12/18 22:55	
Molybdenum	ug/L	ND	10.0	02/12/18 22:55	
Nickel	ug/L	ND	10.0	02/12/18 22:55	
Selenium	ug/L	ND	10.0	02/12/18 22:55	
Zinc	ug/L	ND	20.0	02/12/18 22:55	

LABORATORY CONTROL SAMPLE: 1969951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	958	96	80-120	
Cobalt	ug/L	1000	974	97	80-120	
Lead	ug/L	1000	953	95	80-120	
Molybdenum	ug/L	1000	990	99	80-120	
Nickel	ug/L	1000	990	99	80-120	
Selenium	ug/L	1000	984	98	80-120	
Zinc	ug/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969952 1969953

Parameter	Units	50189870014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1070	1070	106	106	75-125	0	20	
Cadmium	ug/L	ND	1000	1000	972	971	97	97	75-125	0	20	
Cobalt	ug/L	ND	1000	1000	932	928	93	93	75-125	0	20	
Lead	ug/L	ND	1000	1000	883	882	88	88	75-125	0	20	
Molybdenum	ug/L	110	1000	1000	1100	1100	99	99	75-125	0	20	
Nickel	ug/L	11.5	1000	1000	945	944	93	93	75-125	0	20	
Selenium	ug/L	ND	1000	1000	1030	1020	102	102	75-125	0	20	
Zinc	ug/L	ND	1000	1000	994	994	99	99	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Tim Nestler
wilburellis.com
Jul 23, 2019 15:30

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427351 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1970067 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Cadmium, Dissolved	ug/L	ND	2.0	02/12/18 21:58	
Cobalt, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Lead, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Molybdenum, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Nickel, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Selenium, Dissolved	ug/L	ND	10.0	02/12/18 21:58	
Zinc, Dissolved	ug/L	ND	20.0	02/12/18 21:58	

LABORATORY CONTROL SAMPLE: 1970068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	1000	915	91	80-120	
Cadmium, Dissolved	ug/L	1000	876	88	80-120	
Cobalt, Dissolved	ug/L	1000	904	90	80-120	
Lead, Dissolved	ug/L	1000	867	87	80-120	
Molybdenum, Dissolved	ug/L	1000	928	93	80-120	
Nickel, Dissolved	ug/L	1000	909	91	80-120	
Selenium, Dissolved	ug/L	1000	900	90	80-120	
Zinc, Dissolved	ug/L	1000	903	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970069 1970070

Parameter	Units	50189506001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	1020	1020	102	102	75-125	0	20	
Cadmium, Dissolved	ug/L	ND	1000	1000	954	953	95	95	75-125	0	20	
Cobalt, Dissolved	ug/L	ND	1000	1000	942	941	94	94	75-125	0	20	
Lead, Dissolved	ug/L	ND	1000	1000	903	903	90	90	75-125	0	20	
Molybdenum, Dissolved	ug/L	27.2	1000	1000	1030	1020	100	100	75-125	0	20	
Nickel, Dissolved	ug/L	ND	1000	1000	950	949	94	94	75-125	0	20	
Selenium, Dissolved	ug/L	ND	1000	1000	992	985	99	98	75-125	1	20	
Zinc, Dissolved	ug/L	ND	1000	1000	979	976	98	98	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427340 Analysis Method: SM 2540G
QC Batch Method: SM 2540G Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

SAMPLE DUPLICATE: 1970047

Parameter	Units	50189870001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.9	13.9	7	5	R1

SAMPLE DUPLICATE: 1970048

Parameter	Units	50189889001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.5	18.4	11	5	R1

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427324 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

METHOD BLANK: 1970007 Matrix: Solid
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	ND	49.4	02/13/18 14:43	

LABORATORY CONTROL SAMPLE: 1970008

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	485	471	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970009 1970010

Parameter	Units	50189870001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/kg	167	569	583	677	757	90	101	90-110	11	20	

MATRIX SPIKE SAMPLE: 1970011

Parameter	Units	50189197001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	2500	1580	4130	104	90-110	

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427326 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1970012 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	02/13/18 14:59	

LABORATORY CONTROL SAMPLE: 1970013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970014 1970015

Parameter	Units	50189320002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	2.6	5	5	7.6	8.1	99	110	90-110	7	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427359 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

METHOD BLANK: 1970108 Matrix: Solid
Associated Lab Samples: 50189870001, 50189870002, 50189870003, 50189870004, 50189870005, 50189870006, 50189870007, 50189870008, 50189870009, 50189870010, 50189870011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/kg	ND	5.0	02/13/18 16:38	N2

LABORATORY CONTROL SAMPLE: 1970109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/kg	10	10.7	108	90-110	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970110 1970111

Parameter	Units	50189870002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/kg	ND	11.2	11.2	14.3	14.2	113	113	90-110	0	20	N2

MATRIX SPIKE SAMPLE: 1970112

Parameter	Units	50189870005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/kg	8.5	11.8	20.0	97	90-110	N2

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REPORT OF LABORATORY ANALYSIS

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Jul 23, 2019 15:30

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Sunnyside, WA
Pace Project No.: 50189870

QC Batch: 427181 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 50189870012, 50189870013, 50189870014

METHOD BLANK: 1969201 Matrix: Water
Associated Lab Samples: 50189870012, 50189870013, 50189870014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	02/09/18 12:41	
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	02/09/18 12:41	

LABORATORY CONTROL SAMPLE: 1969202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.99	99	90-110	
Nitrogen, NO2 plus NO3	mg/L	2	2.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969203 1969204

Parameter	Units	50189870014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	120	100	100	217	216	97	96	90-110	0	20	
Nitrogen, NO2 plus NO3	mg/L	121	200	200	316	315	98	97	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Sunnyside, WA
Pace Project No.: 50189870

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter.
R1	RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50189870001	**SB-1-0-3**	EPA 3050	427185	EPA 6010	427328
50189870002	**SB-2-0-3**	EPA 3050	427185	EPA 6010	427328
50189870003	**SB-3-0-3**	EPA 3050	427185	EPA 6010	427328
50189870004	**SB-4-0-3**	EPA 3050	427185	EPA 6010	427328
50189870005	**SB-5-0-3**	EPA 3050	427185	EPA 6010	427328
50189870006	**SB-6-0-3**	EPA 3050	427185	EPA 6010	427328
50189870007	**SB-7-0-3**	EPA 3050	427185	EPA 6010	427328
50189870008	**SB-8-0-3**	EPA 3050	427185	EPA 6010	427328
50189870009	**SB-9-4-6**	EPA 3050	427185	EPA 6010	427328
50189870010	**SB-10-4-6**	EPA 3050	427185	EPA 6010	427328
50189870011	**SB-11-4-6**	EPA 3050	427185	EPA 6010	427328
50189870012	**SB-9-GW-7-10**	EPA 3010	427298	EPA 6010	427442
50189870013	**SB-10-GW-7-10**	EPA 3010	427298	EPA 6010	427442
50189870014	**SB-11-GW-7-10**	EPA 3010	427298	EPA 6010	427442
50189870012	**SB-9-GW-7-10**	EPA 3010	427351	EPA 6010	427440
50189870013	**SB-10-GW-7-10**	EPA 3010	427351	EPA 6010	427440
50189870014	**SB-11-GW-7-10**	EPA 3010	427351	EPA 6010	427440
50189870012	**SB-9-GW-7-10**	EPA 7470	427265	EPA 7470	427427
50189870013	**SB-10-GW-7-10**	EPA 7470	427265	EPA 7470	427427
50189870014	**SB-11-GW-7-10**	EPA 7470	427265	EPA 7470	427427
50189870012	**SB-9-GW-7-10**	EPA 7470	427350	EPA 7470	427429
50189870013	**SB-10-GW-7-10**	EPA 7470	427350	EPA 7470	427429
50189870014	**SB-11-GW-7-10**	EPA 7470	427350	EPA 7470	427429
50189870001	**SB-1-0-3**	EPA 7471	427267	EPA 7471	427339
50189870002	**SB-2-0-3**	EPA 7471	427267	EPA 7471	427339
50189870003	**SB-3-0-3**	EPA 7471	427267	EPA 7471	427339
50189870004	**SB-4-0-3**	EPA 7471	427267	EPA 7471	427339
50189870005	**SB-5-0-3**	EPA 7471	427267	EPA 7471	427339
50189870006	**SB-6-0-3**	EPA 7471	427267	EPA 7471	427339
50189870007	**SB-7-0-3**	EPA 7471	427267	EPA 7471	427339
50189870008	**SB-8-0-3**	EPA 7471	427267	EPA 7471	427339
50189870009	**SB-9-4-6**	EPA 7471	427267	EPA 7471	427339
50189870010	**SB-10-4-6**	EPA 7471	427267	EPA 7471	427339
50189870011	**SB-11-4-6**	EPA 7471	427267	EPA 7471	427339
50189870001	**SB-1-0-3**	SM 2540G	427340		
50189870002	**SB-2-0-3**	SM 2540G	427340		
50189870003	**SB-3-0-3**	SM 2540G	427340		
50189870004	**SB-4-0-3**	SM 2540G	427340		
50189870005	**SB-5-0-3**	SM 2540G	427340		
50189870006	**SB-6-0-3**	SM 2540G	427340		
50189870007	**SB-7-0-3**	SM 2540G	427340		
50189870008	**SB-8-0-3**	SM 2540G	427340		
50189870009	**SB-9-4-6**	SM 2540G	427340		
50189870010	**SB-10-4-6**	SM 2540G	427340		
50189870011	**SB-11-4-6**	SM 2540G	427340		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Sunnyside, WA
Pace Project No.: 50189870

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50189870001	**SB-1-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870002	**SB-2-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870003	**SB-3-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870004	**SB-4-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870005	**SB-5-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870006	**SB-6-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870007	**SB-7-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870008	**SB-8-0-3**	EPA 351.2	427324	EPA 351.2	427397
50189870009	**SB-9-4-6**	EPA 351.2	427324	EPA 351.2	427397
50189870010	**SB-10-4-6**	EPA 351.2	427324	EPA 351.2	427397
50189870011	**SB-11-4-6**	EPA 351.2	427324	EPA 351.2	427397
50189870012	**SB-9-GW-7-10**	EPA 351.2	427326	EPA 351.2	427398
50189870013	**SB-10-GW-7-10**	EPA 351.2	427326	EPA 351.2	427398
50189870014	**SB-11-GW-7-10**	EPA 351.2	427326	EPA 351.2	427398
50189870001	**SB-1-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870002	**SB-2-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870003	**SB-3-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870004	**SB-4-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870005	**SB-5-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870006	**SB-6-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870007	**SB-7-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870008	**SB-8-0-3**	EPA 353.2	427359	EPA 353.2	427382
50189870009	**SB-9-4-6**	EPA 353.2	427359	EPA 353.2	427382
50189870010	**SB-10-4-6**	EPA 353.2	427359	EPA 353.2	427382
50189870011	**SB-11-4-6**	EPA 353.2	427359	EPA 353.2	427382
50189870012	**SB-9-GW-7-10**	EPA 353.2	427181		
50189870013	**SB-10-GW-7-10**	EPA 353.2	427181		
50189870014	**SB-11-GW-7-10**	EPA 353.2	427181		

JK

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	August Mack Environmental, Inc.
Address:	7830 North Central Drive, Suite B
	Lewis Center, Ohio 43035
Email To:	Slandrum@Augustmack.com
Phone:	(740) 540-1500 Fax: (740) 540-1531
Requested Due Date/TAT:	48 Hour

Section B Required Project Information:

Report To:	Shannon Landrum
Copy To:	Emily Rastorfer
	Erastorfer@Augustmack.com
Purchase Order No.:	NA
Project Name:	Sunnyside, WA
Project Number:	JS0086.741 - Trans

Section C Invoice Information:

Attention:	Same as Left
Company Name:	August Mack Environmental, Inc.
Address:	Same as Left
Pace Quote Reference:	NA
Pace Project Manager:	Kelly Jones
Pace Profile #:	NA

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: WA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes (MATRIX CODE): DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (C=COMP G=GRAB)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED GRAB DATE	COLLECTED GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Metals via 6010	Mercury via 7470	Nitrate-Nitrogen via 353.2	Total Kjeldahl Nitrogen via 351.2	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 50189870
																		Y/N	N	N	N	N		
1	SB-1 - 0-3	SL	C	02/07/18	10:00				2	X									X	X	X	X		001
2	SB-2 - 0-3	SL	C	02/07/18	11:50				2	X									X	X	X	X		002
3	SB-3 - 0-3	SL	C	02/07/18	12:50				2	X									X	X	X	X		003
4	SB-4 - 0-3	SL	C	02/07/18	13:30				2	X									X	X	X	X		004
5	SB-5 - 0-3	SL	C	02/07/18	14:00				2	X									X	X	X	X		DUP
6	SB-6 - 0-3	SL	C	02/07/18	14:30				2	X									X	X	X	X		006
7	SB-7 - 0-3	SL	C	02/07/18	15:00				2	X									X	X	X	X		007
8	SB-8 - 0-3	SL	C	02/07/18	15:30				2	X									X	X	X	X		008
9	SB-9 - 4-6	SL	G			02/08/18	10:30		2	X									X	X	X	X		009
10	SB-10 - 4-6	SL	G			02/08/18	10:50		2	X									X	X	X	X		010
11	SB-11 - 4-6	SL	G			02/08/18	11:30		2	X									X	X	X	X		011
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Conner Hedderick / August Mack	2/8/18	15:30		2/9/18	0810

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
0.7 / 0.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Conner Hedderick

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 2/8/18

confidential
Tim Nestler
wilburellis.com
Jul 23, 2019 15:30

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	August Mack Environmental, Inc.
Address:	7830 North Central Drive, Suite B
	Lewis Center, Ohio 43035
Email To:	Slandrum@Augustmack.com
Phone:	(740) 540-1500 Fax: (740) 540-1531
Requested Due Date/TAT:	48 Hour

Section B Required Project Information:

Report To:	Shannon Landrum
Copy To:	Emily Rastorfer
	Erastorfer@Augustmack.com
Purchase Order No.:	NA
Project Name:	Sunnyside, WA
Project Number:	JS0086.741 - Trans

Section C Invoice Information:

Attention:	Same as Left
Company Name:	August Mack Environmental, Inc.
Address:	Same as Left
Pace Quote Reference:	NA
Pace Project Manager:	Kelly Jones
Pace Profile #:	NA

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: WA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes (MATRIX CODE)

DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (C=COMP G=GRAB)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED GRAB DATE	COLLECTED GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Metals via 6010	Mercury via 7470	Metals via 6010	Mercury via 7470	Nitrate-Nitrogen via 353.2	Total Kjeldahl Nitrogen via 351.2	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y	Y	Y	N	N	N	N		50189870
1	SB-9 - GW - 7-10	WT	G			02/08/18	10:30		3	X	X	X									X	X	X	X		012
2	SB-9 - GW - 7-10 Unpreserved Lab Filtered	WT	G			02/08/18	10:30		1	X									X	X						1
3	SB-10 - GW - 7-10	WT	G			02/08/18	10:55		3	X	X	X									X	X	X	X		013
4	SB-10 - GW - 7-10 Unpreserved Lab Filtered	WT	G			02/08/18	10:55		1	X									X	X						1
5	SB-11 - GW - 7-10	WT	G			02/08/18	11:35		3	X	X	X									X	X	X	X		014
6	SB-11 - GW - 7-10 Unpreserved Lab Filtered	WT	G			02/08/18	11:35		1	X									X	X						1
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Unpreserved metals sample is to be lab filtered.	Conner Hedderick / August Mack	2/8/18	15:30			
Metals sample is for As, Cd, Co, Pb, Mo, Ni, Se, and Zn ONLY					2/9/18	0910

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
07	Y	Y	Y
06			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Conner Hedderick

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 2/8/18

Pace Analytical

SAMPLE CONDITION UPON RECEIPT FORM

Project #: 50184870

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking #: 8122 2683 9908

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No **Seals Intact:** ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F Ice Type: ☐ Wet ☐ Blue ☐ None Samples Iced, Cooling has begun ☐ Yes ☐ No ☐ N/A

Cooler Temperature: 0.5/0.7 0.4/0.6 Ice Visible in Sample Containers?: ☐ Yes ☐ No ☐ N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: ☐ Yes ☐ No ☐ N/A

Date/Time and Initials of person examining contents: TR 2/9/18 09:50

All discrepancies will be written out in the comments section below.

	Yes	No	N/A
Are samples from West Virginia? Document any containers out of temp.		✓	
USDA Regulated Soils? (ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	
Chain of Custody Present:	✓		
Chain of Custody Filled Out:	✓		
Short Hold Time Analysis (<72hr): **Analysis:** NO3	✓		
Time 5035A TC placed in Freezer: _____			
Short Holds To Lab: 1030			
Rush TAT Requested: 2 Day	✓		
Containers Intact?:	✓		
Sample Labels Match COC?: Except TCs, which only require sample ID	✓		

	Yes	No	N/A
All containers needing acid/base pres. Have been checked?: **exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.** All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.	✓		
Circle: ~~HNO3~~ ~~H2SO4~~ NaOH NaOH/ZnAc			
Dissolved Metals field filtered?:		✓	
Headspace Wisconsin Sulfide			✓
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace in VOA Vials (>6mm):			✓
Trip Blank Present?:		✓	
Custody Seals?:		✓	

Comments: SB9 BP3S BP3N PH7

Sample Container Count

CLIENT: Anchor Mack

COC PAGE 1 of 2

COC ID#

Project # S0189870

Sample Line Item	DG9H VG9H	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	SBS DI Bulk Kit R				Matrix SI/WW/NAL (Soil/Water/Non-Aqueous Liquid)	pH <2	pH >9	pH>12
1							2														SL			
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpreserved amber glass
DG9H	40mL HCL amber voa vial	AG1H	1 liter HCL amber glass
DG9M	40mL MeOH clear vial	AG1S	1 liter H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpreserved amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 glass amber
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass
VSG	Headspace septa vial & HCL	BG1S	1 liter H2SO4 clear glass
WGAU	8oz unpreserved clear jar	BG1T	1 liter Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1 liter unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
		BG3U	250mL Unpreserved Clear Glass

Plastic / Misc.

BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic
BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic
BP1S	1 liter H2SO4 plastic		
BP1U	1 liter unpreserved plastic	AF	Air Filter
BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes
BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit
BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
BP2O	500mL NaOH plastic	U	Summa Can
BP2S	500mL H2SO4 plastic	ZPLC	Ziploc Bag
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3S	250mL H2SO4 plastic		

Sample Container Count

CLIENT: August Mack

COC PAGE 2 of 2

COC ID# _____

Project # 50189870

Sample Line Item	DG9H VG9H	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	SBS Bulk Kit R				Matrix SI/WT/NAL (Soil/Water/Non-Aqueous Liquid)	pH <2	pH >9	pH>12
1														1	1	1					WT	7		
2																1								
3														1	1	1						✓		
4																1								
5														1	1	1						✓		
6																1								
7																								
8																								
9																								
10																								
11																								
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Container Codes

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DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpreserved amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 glass amber
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass
VSG	Headspace septa vial & HCL	BG1S	1 liter H2SO4 clear glass
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WGFU	4oz clear soil jar	BG1U	1 liter unpreserved glass
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BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic
BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic
BP1S	1 liter H2SO4 plastic		
BP1U	1 liter unpreserved plastic	AF	Air Filter
BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes
BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit
BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
BP2O	500mL NaOH plastic	U	Summa Can
BP2S	500mL H2SO4 plastic	ZPLC	Ziploc Bag
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3S	250mL H2SO4 plastic		