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June 25, 2021

Ridgetop Golf
c/o: Halsen Frey Associates
PO Box 1447
Gig Harbor, WA 98335
(253) 307-1822

Mr. Carl Halsan
carlhalsan@gmail.com

Soils Investigation and Report
Proposed Contractor Yard
xxx – 14th Avenue Northwest
Pierce County, Washington
PN: 0221213045
Doc ID: RidgetopGolf.14thAveNW.SIR

INTRODUCTION

This report presents the data from our subsurface explorations and third-party laboratory testing regarding the arsenic and lead determinations for the soil at the site located on 14th Avenue Northwest adjacent to the Cushman Trail in the Gig Harbor area of Pierce County, Washington.

Our understanding of the project is based on email and telephone correspondences with Mr. Carl Halsan, our past work at the site, our review of the Department of Ecology (DOE) Environmental Checklist Review for the project dated November 27, 2018, our understanding of the DOE *Tacoma Smelter Plume Model Remedies Guidance* (2019) and our past experience in the project area.

We understand that DOE has indicated the project site is within the old Asarco Tacoma Smelter Plume as determined by prior mapping. DOE's Tacoma Smelter Plume map search tool shows the site is located in an area mapped as containing 40.1 to 100 parts per million (ppm) Arsenic. As such, DOE is requesting sampling the soil and analyzing for arsenic and lead following the 2019 Tacoma Smelter Plume Guidance as a condition of the permit.

SCOPE

Based on our discussion with Eva Barber at the DOE Tacoma Smelter Plume Department, we propose a scope of work that conforms to the performance standards as outlined in the DOE's *Tacoma Smelter Plume Model Remedies Guidance* and includes the following:

1. Reviewing existing geological and geotechnical literature for the site area;
2. Visiting the site and collecting a series of samples at 32 locations from the upper 6 to 24 inches of soils;
3. Submitting soils to an approved third-party laboratory for arsenic and lead determinations;
4. Providing a data report detailing exploration locations, methods, and analytical results.

SITE CONDITIONS

Surface Conditions

The proposed Cushman Trail Contractors Yard is located on the east margin of the Gig Harbor glacial upland area. The site is situated in an area of historical commercial, multifamily and rural single family development. According to the Pierce County Assessor website, the site is triangular in shape, measures about 345 feet wide (northeast to southwest) by about 900 feet deep (northwest to southeast), and encompasses approximately 3.77 acres. The site is bounded by commercial development on the south, 14th Avenue NW on the east, SR 16 on the west and the Cushman Trail on the north. The site is currently undeveloped and forested, but was previously graded some time ago. Access is currently provided by a crushed rock trail/driveway that extends west from 14th Avenue NW.

The ground surface at the site is gently to moderately sloping towards the center of the property. The ground surface at the site slopes at between 5 and 20 percent, the steeper areas to the south and east. Localized areas of 20 to 35 percent slope occur in the extreme south portion of the site, adjacent to a localized wetland area south of the site. We expect that the steeper slope areas are related to historic grading, i.e. cut slopes, at the site. The vertical height of the steeper slopes range from approximately 10 feet to 16 feet in height. No areas steeper than 40 percent are present at the site or the immediate adjacent areas.

We observed no evidence of significant erosion, surficial sloughing and soil movement at the site at the time of our site observations. The site is vegetated with grass, brush and scattered trees. Minor surface water was observed in the extreme south portion of the site and the adjacent area at the time of our previous reconnaissance. No groundwater seepage was observed in the explorations the site. The general topography of the site area indicates that the site drains towards the south.

Site Soils

The USDA Natural Resource Conservation Service (NRCS) Web Soil Survey indicates that the site is underlain by Harstine gravelly ashy sandy loam (16C). The Harstine soils are derived from sandy glacial till and form on slopes of 6 to 15 percent. These soils have a “moderate” erosion hazard when exposed and are included in hydrologic soils group C. A copy of the soils map for this area is illustrated on Figure 3.

Site Geology

According to the draft *Geologic Map of the Gig Harbor 7.5-minute Quadrangle Pierce County, Washington* by Troost, K.G., Booth, D.B., and Wells, R.E. (in review), the site is in an area underlain by recessional outwash (Qvr) and glacial till (Qvt). These soils were generally deposited during the most recent Vashon Stade of the Fraser Glaciation, some 12,000 to 15,000 years ago. Recessional outwash typically consists of poorly stratified mixtures of sand and gravel that were deposited by meltwaters emanating from the retreating ice mass. Glacial till typically consists of a heterogeneous mixture of clay, silt, sand and gravel that was deposited at the base of the continental ice mass and is typically encountered overridden by the ice mass. As such, it is considered overconsolidated and in a very dense condition, and exhibits high strength and low compressibility characteristics where undisturbed. Recessional outwash is considered normally consolidated. An excerpt of the above reference geologic map is attached as Figure 4.

Arsenic and Lead Sampling

On September 23, 2020, two GeoResources, LLC (GeoResources) representatives arrived onsite and sampled the soils in general accordance with the *2019 DOE Tacoma Smelter Plume Model Remedies Guidance (*MRG*)*. Based on the information obtained from the MRG, we used a single decision unit (DU1) for the project site. Based on procedures outlined in the guidance document, 32 explorations were completed within DU1. We collected samples from 0 to 6, and 6 to 12 inches below existing grade at each exploration location. Four composite samples were also collected from the site. Samples were taken from the site in sealed glass jars and transported to Spectra Laboratories, an approved third-party laboratory, for testing. The number and locations of the explorations were selected by GeoResources based on MRG and our understanding of the proposed development, consideration for underground utilities, existing site conditions, and current site usage.

The subsurface explorations excavated as part of this evaluation indicate the subsurface conditions at specific locations only, as actual subsurface conditions can vary across the site. Furthermore, the nature and extent of such variation would not become evident until additional explorations are performed or until construction activities have begun.

The approximate locations of our explorations are indicated on the attached Site and Exploration Plan, Figure 2. The soils encountered were visually classified in accordance with the Unified Soil Classification System (USCS) and ASTM D: 2488. The USCS is included in Appendix A as Figure A-1, while the descriptive logs of our test pits are included as Figures A-2 to A-23.

ARSENIC AND LEAD DETERMINATIONS

According to the Washington Department of Ecology – Tacoma Smelter Plume Model Remedies Guidance, "elevated" arsenic or lead levels are measured in parts per million (ppm) and are defined in Table 1, below.

TABLE 1:
"ELEVATED" ARSENIC AND LEAD LEVELS

Contaminant	Average Concentration	Maximum Concentration (any one sample)
Arsenic (As)	>20 ppm	>40 ppm
Lead (Pb)	>250 ppm	>500 ppm

The laboratory used test method 6010(D) in accordance with the guidance document. The average arsenic level for the site was approximately 29 ppm and the average lead level for the site was about 41.4 ppm. The maximum arsenic level was about 117 ppm, encountered at the 0"-6" depth in HA-10, and the maximum lead level was about 126 ppm, encountered at the 0"-6" depth in HA-13. Both the maximum arsenic level and maximum lead level samples were collected near the central portion of the site as shown in Figure 2a. The maximum arsenic level of 117 ppm meets the Department of Ecology's definition of "elevated"; however, samples collected from the 6 inch to 12 inch and the 12 inch to 24 inch depths at the same location were found to be below "elevated" levels. The Laboratory Analyses and Chain of Custody is included in Appendix B.

Based on previous discussions with the Washington Department of Ecology, we anticipate that the site could be enrolled into the Voluntary Cleanup Program (VCP) sponsored by Ecology. The program will provide technical guidance on cleanup efforts and provide documentation of the completed cleanup for the record, including issuing a No Further Action (NFA) for the property.

Typically, site earthwork activities are sufficient to dilute contamination to below cleanup levels. However, per Table 2 of the Ecology guidance manual (below), since the site is within the 40.1 to 100 ppm arsenic zone, mix and dilute in place is not allowed. Instead, shallow excavation and removal is required.

TABLE 2
MODEL REMEDIES BY ARSENIC AND LEAD SOIL LEVEL

Soil sampling results in parts per million (ppm)	Permanent		Non-Permanent			
Average	Excavate & Remove	Mix	Cap in place/Consolidate and cap			
Arsenic 20-40 Lead 250-500	Yes	Yes	Yes			
Arsenic 40-100 Lead 250-500	Yes	No	Max <200 Max <1000	Type 1 or 2*cap	Max >200 Max >1000	Type 2 cap
Arsenic 100-200 Lead 500-1000	Yes	No	Type 2 cap			
Arsenic >200 Lead > 1000	Yes	No	Type 2 cap **(only for capping in place)**			

*Type 1 and 2 caps are described in Chapter 5.

We consulted with Shawn Lombardini of Lombardini Geological Services LLC (LGS) to review the results. We recommended engaging with LGS to work with Ecology staff to prepare a Cleanup Action Plan and submit to DOE prior to beginning of site work. LGS should be retained to observe the clean up, provide technical reports, verification of the cleanup, and submit paperwork to the support the NFA review.

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LIMITATIONS

We have prepared this report for use by Ridgetop Golf, Mr. Carl Halsan, and other members of the design team, for use in the design of a portion of this project. The data used in preparing this report and this report should be provided to prospective contractors for their bidding or estimating purposes only. Our report, conclusions and interpretations are based on our subsurface explorations, data from others and limited site reconnaissance, and should not be construed as a warranty of the subsurface conditions.

Variations in subsurface conditions are possible between the explorations and may also occur with time. A contingency for unanticipated conditions should be included in the budget and schedule. Sufficient monitoring, testing and consultation should be provided by our firm during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether earthwork and foundation installation activities comply with contract plans and specifications.

The scope of our services does not include services related to environmental remediation and construction safety precautions. Our recommendations are not intended to direct the contractor's methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design.

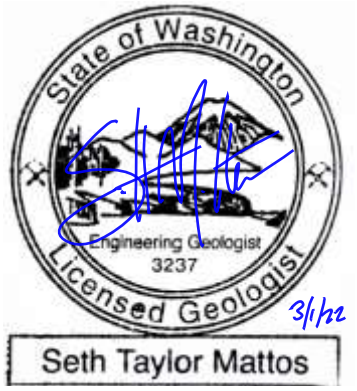
If there are any changes in the loads, grades, locations, configurations or type of facilities to be constructed, the conclusions and recommendations presented in this report may not be fully applicable. If such changes are made, we should be given the opportunity to review our recommendations and provide written modifications or verifications, as appropriate.

◆ ◆ ◆

We have appreciated the opportunity to be of service to you on this project. If you have any questions or comments, please do not hesitate to call at your earliest convenience.

Respectfully submitted,
GeoResources, LLC

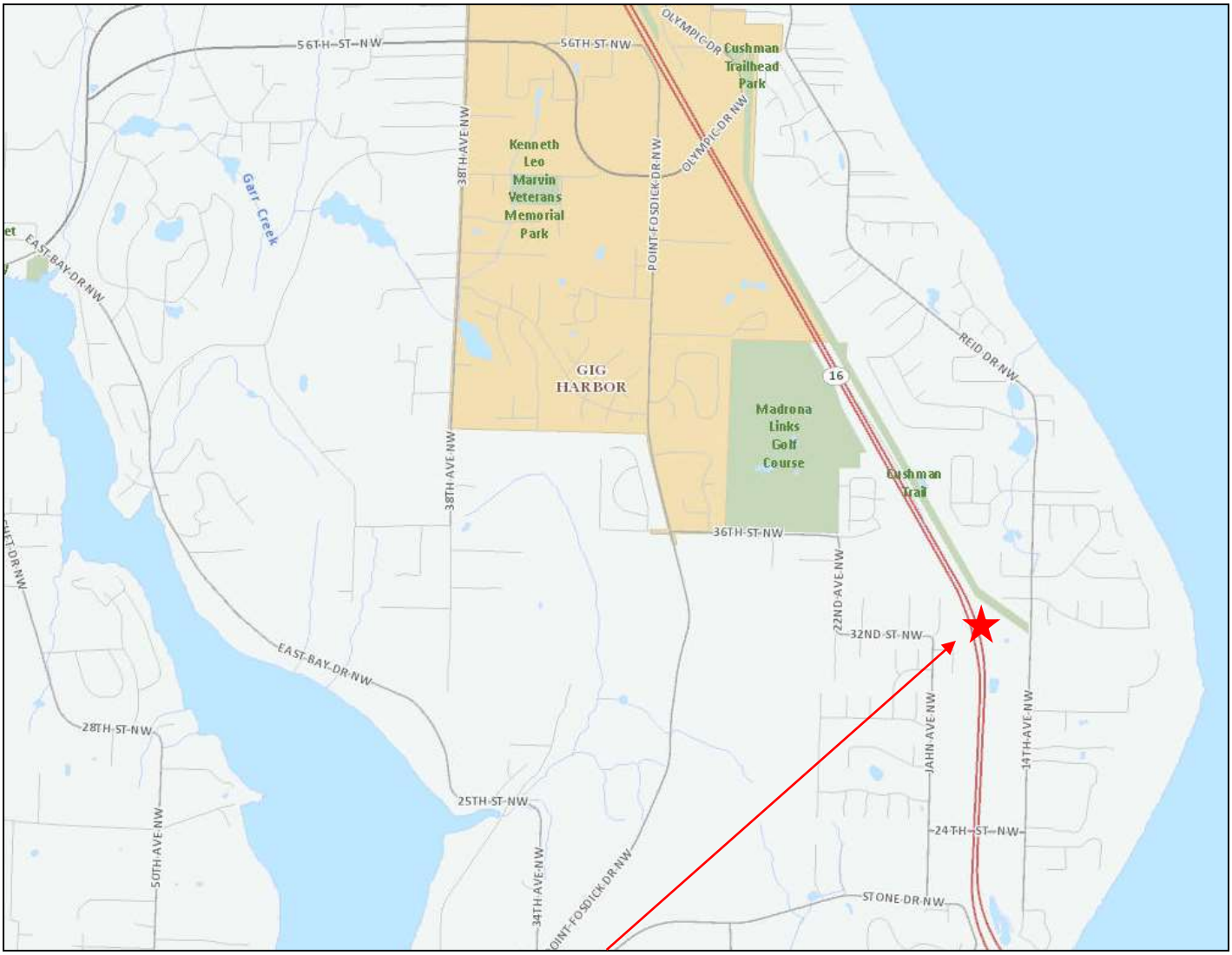
Andrew Schnitger, EIT
Staff Engineer in Training



Keith S. Schembs, LEG
Principal

Seth Mattos, LG
Associate

AES:STM:KSS/aes
DocID: RidgetopGolf.14thAveNW.SIR
Attachments: Figure 1: Site Location Map
Figure 2: Site and Exploration Plan
Figure 3: NRCS Soils Map
Figure 4: USGS Geologic Map
Appendix A – Subsurface Explorations
Appendix B – Laboratory Test Results



Approximate Site Location

Map created from Pierce County Public GIS (https://matterhornwab.co.pierce.wa.us/publicgis/)

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Not to Scale

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Site Location Map

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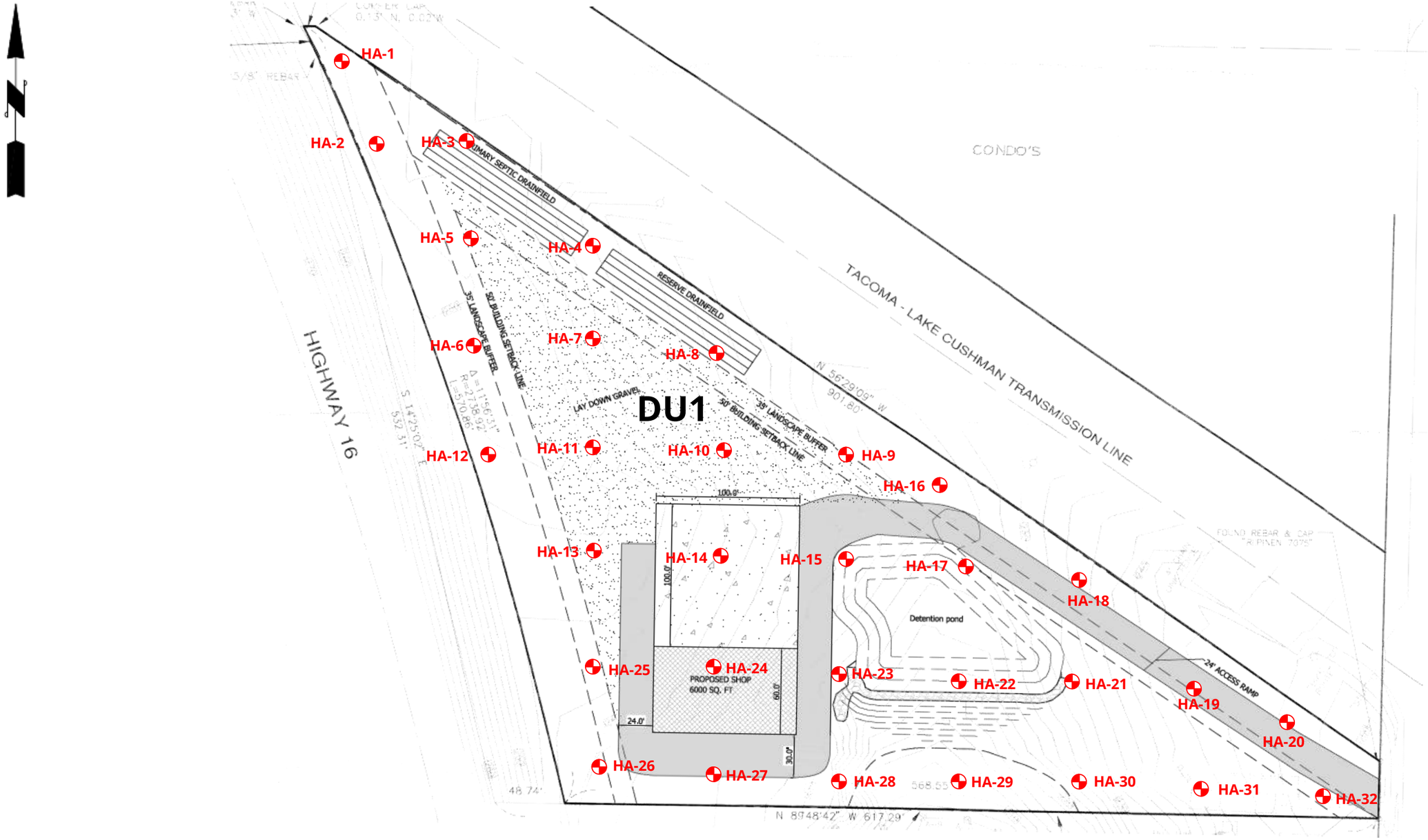
DocID: RidgetopGolf.14thAveNW.F	June 2021	Figure 1



Site Plan Provided by Contour

Exploratoin Number and Approximate Location HA-24

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Site and Exploration Plan
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Doc: RidgetopGolf.14thAveNW.F2	June 2021	Figure 2

Approximate Site Location

Map created from Web Soil Survey (http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx)

Soil Type	Soil Name	Parent Material	Slopes	Erosion Hazard	Hydrologic Soils Group
16C	Harstine gravelly sandy loam	Sandy glacial drift with an influence of volcanic ash over dense glaciomarine deposits	6 to 15	Moderate	C
16D			15 to 30	Moderate to severe	

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NRCS Soils Map

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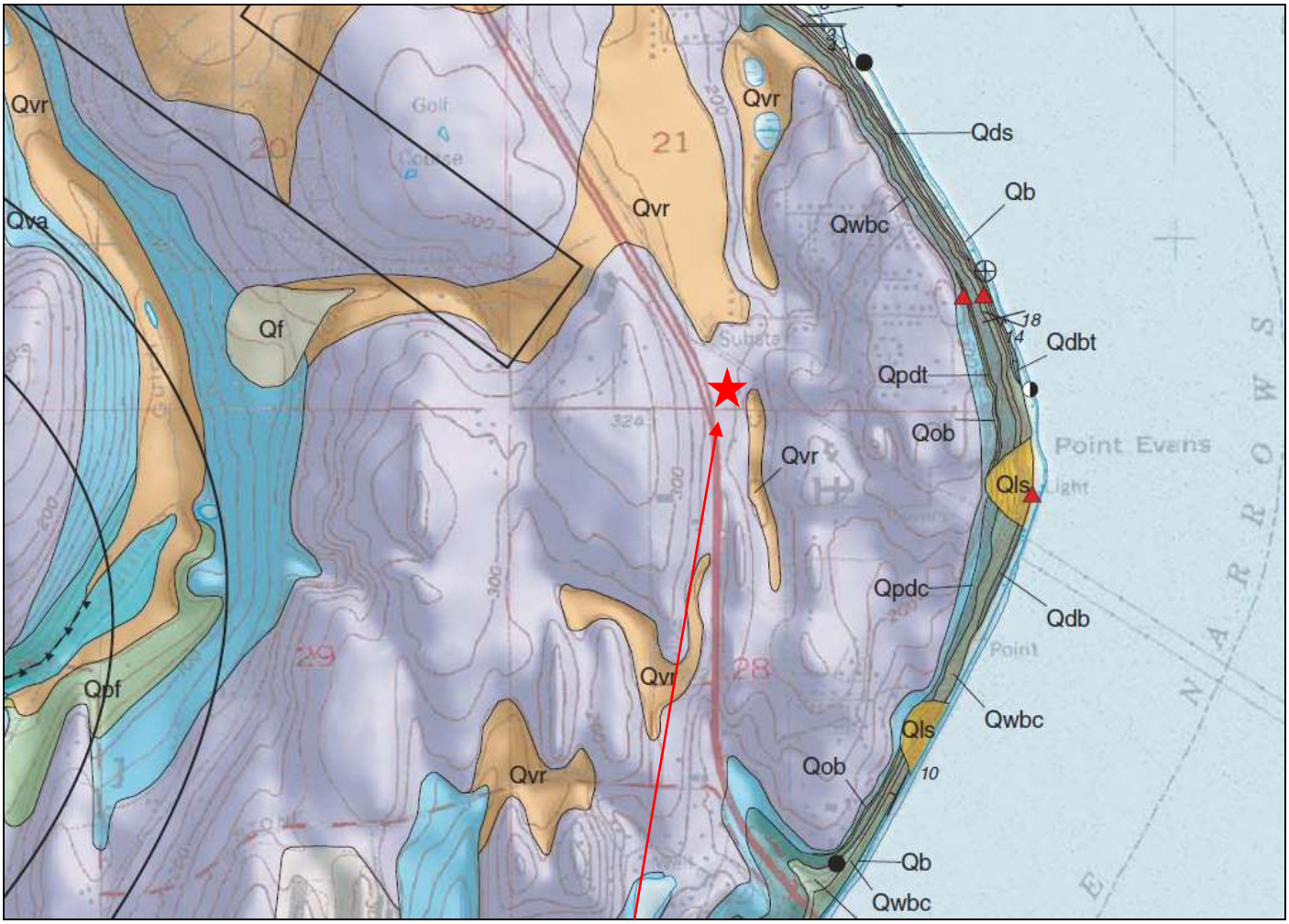

Approximate Site Location

(An excerpt from the *Geologic Map of the Gig Harbor 7.5-minute Quadrangle, Washington* by Troost, K.G., Booth, D.B., and Wells, R.E. in review)

Qvr	Recessional outwash deposits
Qvt	Glacial till

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USGS Geologic Map

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Appendix A

Subsurface Explorations

SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE GRAINED SOILS More than 50% Retained on No. 200 Sieve	GRAVEL More than 50% Of Coarse Fraction Retained on No. 4 Sieve	CLEAN GRAVEL	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
			GP	POORLY-GRADED GRAVEL
		GRAVEL WITH FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SAND More than 50% Of Coarse Fraction Passes No. 4 Sieve	CLEAN SAND	SW	WELL-GRADED SAND, FINE TO COARSE SAND
			SP	POORLY-GRADED SAND
		SAND WITH FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS More than 50% Passes No. 200 Sieve	SILT AND CLAY Liquid Limit Less than 50	INORGANIC	ML	SILT
			CL	CLAY
		ORGANIC	OL	ORGANIC SILT, ORGANIC CLAY
	SILT AND CLAY Liquid Limit 50 or more	INORGANIC	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
			CH	CLAY OF HIGH PLASTICITY, FAT CLAY
		ORGANIC	OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			PT	PEAT

NOTES:

1. Field classification is based on visual examination of soil in general accordance with ASTM D2488-90.
2. Soil classification using laboratory tests is based on ASTM D2487-90.
3. Description of soil density or consistency are based on interpretation of blow count data, visual appearance of soils, and or test data.

SOIL MOISTURE MODIFIERS:

Dry- Absence of moisture, dry to the touch

Moist- Damp, but no visible water

Wet- Visible free water or saturated, usually soil is obtained from below water table

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Unified Soils Classification System

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Hand Auger HA-1

Location: Northernmost portion of parcel

Depth (in)	Soil Type	Soil Description
0 - 5	-	Forest duff
5 - 17	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 17 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-2

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 3	-	Forest duff
3 - 9	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 9 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-3

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-4

Location: Northern half of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	14	SM	Light brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-5

Location: Northern half of parcel

Depth (in)			Soil Type	Soil Description
0	-	4	-	Forest duff
4	-	10	SM	Light brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-6

Location: Northern half of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Light brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-7

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Light brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-8

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 14	SM	Light brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-9

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 1	-	Forest duff
1 - 7	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 7 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-10

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 1	-	Forest duff
1 - 7	SM	Reddish brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 7 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-11

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Reddish brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-12

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 14	SM	Light brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-13

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-14

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-15

Location: Northern half of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-16

Location: Northern half of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	14	SM	Brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-17

Location: Central portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-18

Location: Eastern portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Light Brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-19

Location: Southeastern portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	10	SM	Light Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-20

Location: Southeastern portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	4	-	Forest duff
4	-	16	SM	Light Brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 16 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-21

Location: Southeasternmost portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-22

Location: Central portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	4	-	Forest duff
4	-	10	SM	Light Brown silty SAND with gravel (loose to medium dense, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-23

Location: Central portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 2 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-24

Location: Central portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	14	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-25

Location: Westernnmost portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	10	SM	Reddish Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-26

Location: Southernnnmost portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	4	-	Forest duff
4	-	10	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-27

Location: Southernnnmost portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-28

Location: Southernnmost portion of parcel

Depth (in)	Soil Type	Soil Description
0 - 4	-	Forest duff
4 - 15	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 15 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-29

Location: Southernnmost portion of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 10	SM	Light Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-30

Location: Southernmost portion of parcel

Depth (in)	Soil Type	Soil Description
0 - 2	-	Forest duff
2 - 8	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 8 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Hand Auger HA-31

Location: Southeastern portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	4	-	Forest duff
4	-	10	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 10 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Hand Auger HA-32

Location: Southeastern portion of parcel

Depth (in)			Soil Type	Soil Description
0	-	2	-	Forest duff
2	-	14	SM	Brown silty SAND with gravel (loose, moist) (sandy till)

Terminated at 14 inches below the existing ground surface.
No caving observed at the time of excavation.
No groundwater seepage observed.
No mottling observed.

Logged by: AES/MM **Excavated on: September 23, 2020**

Appendix B

Laboratory Test Results

SPECTRA Laboratories ...Where experience matters
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10/02/2020

GeoResources, LLC
4809 Pacific Hwy E
Fife, WA 98424

Project: HA
Sample Matrix: Soil
Date Sampled: 09/23/2020
Date Received: 09/24/2020
Spectra Project: 2020090781

Client ID	Spectra #	Analyte	Result	Units	Method
HA 1, D= 0-6"	1	Arsenic--Protocol Prep	49.8	mg/Kg Dry	SW846 6010D
HA 1, D= 0-6"	1	Lead--Protocol Prep	90.0	mg/Kg Dry	SW846 6010D
HA 2, D= 0-6"	2	Arsenic--Protocol Prep	34.2	mg/Kg Dry	SW846 6010D
HA 2, D= 0-6"	2	Lead--Protocol Prep	71.0	mg/Kg Dry	SW846 6010D
HA 3, D= 0-6"	3	Arsenic--Protocol Prep	18.7	mg/Kg Dry	SW846 6010D
HA 3, D= 0-6"	3	Lead--Protocol Prep	30.1	mg/Kg Dry	SW846 6010D
HA 4, D= 0-6"	4	Arsenic--Protocol Prep	22.9	mg/Kg Dry	SW846 6010D
HA 4, D= 0-6"	4	Lead--Protocol Prep	90.1	mg/Kg Dry	SW846 6010D
HA 5, D= 0-6"	5	Arsenic--Protocol Prep	15.3	mg/Kg Dry	SW846 6010D
HA 5, D= 0-6"	5	Lead--Protocol Prep	9.3	mg/Kg Dry	SW846 6010D
HA 6, D= 0-6"	6	Arsenic--Protocol Prep	44.0	mg/Kg Dry	SW846 6010D
HA 6, D= 0-6"	6	Lead--Protocol Prep	22.6	mg/Kg Dry	SW846 6010D
HA 7, D= 0-6"	7	Arsenic--Protocol Prep	73.1	mg/Kg Dry	SW846 6010D
HA 7, D= 0-6"	7	Lead--Protocol Prep	73.2	mg/Kg Dry	SW846 6010D
HA 8, D= 0-6"	8	Arsenic--Protocol Prep	54.6	mg/Kg Dry	SW846 6010D
HA 8, D= 0-6"	8	Lead--Protocol Prep	61.7	mg/Kg Dry	SW846 6010D
HA 9, D= 0-6"	9	Arsenic--Protocol Prep	37.9	mg/Kg Dry	SW846 6010D
HA 9, D= 0-6"	9	Lead--Protocol Prep	56.0	mg/Kg Dry	SW846 6010D
HA 10, D= 0-6"	10	Arsenic--Protocol Prep	117	mg/Kg Dry	SW846 6010D
HA 10, D= 0-6"	10	Lead--Protocol Prep	78.4	mg/Kg Dry	SW846 6010D
HA 11, D= 0-6"	11	Arsenic--Protocol Prep	21.8	mg/Kg Dry	SW846 6010D

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Christina Frans, QA Manager
a7/scj

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10/02/2020

GeoResources, LLC
4809 Pacific Hwy E
Fife, WA 98424

Project: HA
Sample Matrix: Soil
Date Sampled: 09/23/2020
Date Received: 09/24/2020
Spectra Project: 2020090781

Client ID	Spectra #	Analyte	Result	Units	Method
HA 11, D= 0-6"	11	Lead--Protocol Prep	42.8	mg/Kg Dry	SW846 6010D
HA 12, D= 0-6"	12	Arsenic--Protocol Prep	11.8	mg/Kg Dry	SW846 6010D
HA 12, D= 0-6"	12	Lead--Protocol Prep	18.7	mg/Kg Dry	SW846 6010D
HA 13, D= 0-6"	13	Arsenic--Protocol Prep	64.1	mg/Kg Dry	SW846 6010D
HA 13, D= 0-6"	13	Lead--Protocol Prep	126	mg/Kg Dry	SW846 6010D
HA 14, D= 0-6"	14	Arsenic--Protocol Prep	34.4	mg/Kg Dry	SW846 6010D
HA 14, D= 0-6"	14	Lead--Protocol Prep	61.8	mg/Kg Dry	SW846 6010D
HA 15, D= 0-6"	15	Arsenic--Protocol Prep	32.4	mg/Kg Dry	SW846 6010D
HA 15, D= 0-6"	15	Lead--Protocol Prep	44.4	mg/Kg Dry	SW846 6010D
HA 16, D= 0-6"	16	Arsenic--Protocol Prep	16.0	mg/Kg Dry	SW846 6010D
HA 16, D= 0-6"	16	Lead--Protocol Prep	25.0	mg/Kg Dry	SW846 6010D
HA 17, D= 0-6"	17	Arsenic--Protocol Prep	12.8	mg/Kg Dry	SW846 6010D
HA 17, D= 0-6"	17	Lead--Protocol Prep	21.0	mg/Kg Dry	SW846 6010D
HA 18, D= 0-6"	18	Arsenic--Protocol Prep	9.1	mg/Kg Dry	SW846 6010D
HA 18, D= 0-6"	18	Lead--Protocol Prep	18.3	mg/Kg Dry	SW846 6010D
HA 19, D= 0-6"	19	Arsenic--Protocol Prep	24.5	mg/Kg Dry	SW846 6010D
HA 19, D= 0-6"	19	Lead--Protocol Prep	51.7	mg/Kg Dry	SW846 6010D
HA 20, D= 0-6"	20	Arsenic--Protocol Prep	34.3	mg/Kg Dry	SW846 6010D
HA 20, D= 0-6"	20	Lead--Protocol Prep	51.8	mg/Kg Dry	SW846 6010D
HA 21, D= 0-6"	21	Arsenic--Protocol Prep	7.8	mg/Kg Dry	SW846 6010D
HA 21, D= 0-6"	21	Lead--Protocol Prep	13.5	mg/Kg Dry	SW846 6010D

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Christina Frans, QA Manager

a7/scj

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10/02/2020

GeoResources, LLC
4809 Pacific Hwy E
Fife, WA 98424

Project: HA
Sample Matrix: Soil
Date Sampled: 09/23/2020
Date Received: 09/24/2020
Spectra Project: 2020090781

Client ID	Spectra #	Analyte	Result	Units	Method
HA 22, D= 0-6"	22	Arsenic--Protocol Prep	11.3	mg/Kg Dry	SW846 6010D
HA 22, D= 0-6"	22	Lead--Protocol Prep	22.8	mg/Kg Dry	SW846 6010D
HA 23, D= 0-6"	23	Arsenic--Protocol Prep	22.3	mg/Kg Dry	SW846 6010D
HA 23, D= 0-6"	23	Lead--Protocol Prep	20.4	mg/Kg Dry	SW846 6010D
HA 24, D= 0-6"	24	Arsenic--Protocol Prep	18.8	mg/Kg Dry	SW846 6010D
HA 24, D= 0-6"	24	Lead--Protocol Prep	35.0	mg/Kg Dry	SW846 6010D
HA 25, D= 0-6"	25	Arsenic--Protocol Prep	48.7	mg/Kg Dry	SW846 6010D
HA 25, D= 0-6"	25	Lead--Protocol Prep	97.0	mg/Kg Dry	SW846 6010D
HA 26, D= 0-6"	26	Arsenic--Protocol Prep	21.1	mg/Kg Dry	SW846 6010D
HA 26, D= 0-6"	26	Lead--Protocol Prep	41.0	mg/Kg Dry	SW846 6010D
HA 27, D= 0-6"	27	Arsenic--Protocol Prep	52.5	mg/Kg Dry	SW846 6010D
HA 27, D= 0-6"	27	Lead--Protocol Prep	40.8	mg/Kg Dry	SW846 6010D
HA 28, D= 0-6"	28	Arsenic--Protocol Prep	4.4	mg/Kg Dry	SW846 6010D
HA 28, D= 0-6"	28	Lead--Protocol Prep	6.3	mg/Kg Dry	SW846 6010D
HA 29, D= 0-6"	29	Arsenic--Protocol Prep	21.1	mg/Kg Dry	SW846 6010D
HA 29, D= 0-6"	29	Lead--Protocol Prep	29.3	mg/Kg Dry	SW846 6010D
HA 30, D= 0-6"	30	Arsenic--Protocol Prep	9.6	mg/Kg Dry	SW846 6010D
HA 30, D= 0-6"	30	Lead--Protocol Prep	21.0	mg/Kg Dry	SW846 6010D
HA 31, D= 0-6"	31	Arsenic--Protocol Prep	15.5	mg/Kg Dry	SW846 6010D
HA 31, D= 0-6"	31	Lead--Protocol Prep	19.6	mg/Kg Dry	SW846 6010D

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10/02/2020

GeoResources, LLC
4809 Pacific Hwy E
Fife, WA 98424

Project: HA
Sample Matrix: Soil
Date Sampled: 09/23/2020
Date Received: 09/24/2020
Spectra Project: 2020090781

Client ID	Spectra #	Analyte	Result	Units	Method
HA 32, D= 0-6"	32	Arsenic--Protocol Prep	30.3	mg/Kg Dry	SW846 6010D
HA 32, D= 0-6"	32	Lead--Protocol Prep	44.4	mg/Kg Dry	SW846 6010D
HA 1, D= 6-12"	33	Arsenic--Protocol Prep	18.3	mg/Kg Dry	SW846 6010D
HA 1, D= 6-12"	33	Lead--Protocol Prep	30.3	mg/Kg Dry	SW846 6010D
HA 4, D= 6-12"	34	Arsenic--Protocol Prep	21.1	mg/Kg Dry	SW846 6010D
HA 4, D= 6-12"	34	Lead--Protocol Prep	41.2	mg/Kg Dry	SW846 6010D
HA 8, D= 6-12"	35	Arsenic--Protocol Prep	13.2	mg/Kg Dry	SW846 6010D
HA 8, D= 6-12"	35	Lead--Protocol Prep	14.7	mg/Kg Dry	SW846 6010D
HA 12, D= 6-12"	36	Arsenic--Protocol Prep	21.9	mg/Kg Dry	SW846 6010D
HA 12, D= 6-12"	36	Lead--Protocol Prep	23.2	mg/Kg Dry	SW846 6010D
HA 16, D= 6-12"	37	Arsenic--Protocol Prep	15.9	mg/Kg Dry	SW846 6010D
HA 16, D= 6-12"	37	Lead--Protocol Prep	21.6	mg/Kg Dry	SW846 6010D
HA 20, D= 6-12"	38	Arsenic--Protocol Prep	29.0	mg/Kg Dry	SW846 6010D
HA 20, D= 6-12"	38	Lead--Protocol Prep	31.5	mg/Kg Dry	SW846 6010D
HA 24, D= 6-12"	39	Arsenic--Protocol Prep	27.0	mg/Kg Dry	SW846 6010D
HA 24, D= 6-12"	39	Lead--Protocol Prep	28.1	mg/Kg Dry	SW846 6010D
HA 28, D= 6-12"	40	Arsenic--Protocol Prep	11.7	mg/Kg Dry	SW846 6010D
HA 28, D= 6-12"	40	Lead--Protocol Prep	13.3	mg/Kg Dry	SW846 6010D
HA 32, D= 6-12"	41	Arsenic--Protocol Prep	23.2	mg/Kg Dry	SW846 6010D
HA 32, D= 6-12"	41	Lead--Protocol Prep	43.6	mg/Kg Dry	SW846 6010D
Composite 1	42	Arsenic--Protocol Prep	10.3	mg/Kg Dry	SW846 6010D

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Kristie Hintz for
Christina Frans, QA Manager
a7/scj

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10/02/2020

GeoResources, LLC
4809 Pacific Hwy E
Fife, WA 98424

Project: HA
Sample Matrix: Soil
Date Sampled: 09/23/2020
Date Received: 09/24/2020
Spectra Project: 2020090781

Client ID	Spectra #	Analyte	Result	Units	Method
Composite 1	42	Lead--Protocol Prep	50.9	mg/Kg Dry	SW846 6010D
Composite 2	43	Arsenic--Protocol Prep	32.1	mg/Kg Dry	SW846 6010D
Composite 2	43	Lead--Protocol Prep	42.6	mg/Kg Dry	SW846 6010D
Composite 3	44	Arsenic--Protocol Prep	30.0	mg/Kg Dry	SW846 6010D
Composite 3	44	Lead--Protocol Prep	45.1	mg/Kg Dry	SW846 6010D
Composite 4	45	Arsenic--Protocol Prep	28.6	mg/Kg Dry	SW846 6010D
Composite 4	45	Lead--Protocol Prep	43.0	mg/Kg Dry	SW846 6010D

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10/1/2020

Geo Resources, LLC
5007 Pacific Hwy. E.
Suite 16
Fife, WA 98424

Units: mg/Kg
Spectra Project: 2020090781
Applies to Spectra #'s 1-20
Analyst: SCJ

QUALITY CONTROL RESULTS
ICP Metals SW846 6010D - Soil/Solid

Method Blank

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Blank Result
Arsenic	< 2.5
Lead	< 2.5

Laboratory Control Sample (LCS)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	200.0	197.9	99.0
Lead	200.0	197.4	98.7

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020
Sample Spiked: 2020090781-1

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	91.8	200.0	277.3	92.8	276.4	92.3	0.5
Lead	165.8	200.0	318.1	76.2	318.0	76.1	0.1

Comment:
Recovery Limits 75-125%
RPD Limit 20

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10/1/2020

Geo Resources, LLC
5007 Pacific Hwy. E.
Suite 16
Fife, WA 98424

Units: mg/Kg
Spectra Project: 2020090781
Applies to Spectra #'s 21-40
Analyst: SCJ

QUALITY CONTROL RESULTS
ICP Metals SW846 6010D - Soil/Solid

Method Blank

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Blank Result
Arsenic	< 2.5
Lead	< 2.5

Laboratory Control Sample (LCS)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	200.0	196.4	98.2
Lead	200.0	194.3	97.2

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020
Sample Spiked: 2020090781-21

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	14.1	200.0	202.6	94.3	198.5	92.2	2.2
Lead	24.3	200.0	195.0	85.4	192.6	84.2	1.4

Comment:
Recovery Limits 75-125%
RPD Limit 20

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10/1/2020

Geo Resources, LLC
5007 Pacific Hwy. E.
Suite 16
Fife, WA 98424

Units: mg/Kg
Spectra Project: 2020090781
Applies to Spectra #'s 41-45
Analyst: SCJ

QUALITY CONTROL RESULTS
ICP Metals SW846 6010D - Soil/Solid

Method Blank

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Blank Result
Arsenic	< 2.5
Lead	< 2.5

Laboratory Control Sample (LCS)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	200.0	194.2	97.1
Lead	200.0	193.5	96.8

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/1/2020 Date Analyzed: 10/1/2020
Sample Spiked: 2020090781-41

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	40.5	200.0	233.7	96.6	228.9	94.2	2.5
Lead	76.0	200.0	249.4	86.7	251.2	87.6	1.0

Comment:
Recovery Limits 75-125%
RPD Limit 20

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CHAIN OF CUSTODY

NAME GeoResources, LLC

ADDRESS 4809 Pacific Hwy E, Fife, WA 98424

PHONE # (253) 896-1011 FAX #

E-MAIL SethM@georesources.us; KeithS@georesources.us; AndrewS@georesources.us;

SAMPLE ID:	DATE SAMPLED	TIME SAMPLED	MATRIX	Arsenic $37.00	Arsenic & Lead $44.00	Arsenic, Lead, and Cadmium $52.00		NORMAL	RUSH (50% Surcharge)
HA 1, D= 0-6"	9/23/20		Soil		X				
HA 2, D= 0-6"	9/23/20		Soil		X				
HA 3, D= 0-6"	9/23/20		Soil		X				
HA 4, D= 0-6"	9/23/20		Soil		X				
HA 5, D= 0-6"	9/23/20		Soil		X				
HA 6, D= 0-6"	9/23/20		Soil		X				
HA 7, D= 0-6"	9/23/20		Soil		X				
HA 8, D= 0-6"	9/23/20		Soil		X				
HA 9, D= 0-6"	9/23/20		Soil		X				
HA 10, D= 0-6"	9/23/20		Soil		X				

Relinquished by:	Company:	Date:	Time:
Andrew Schnitger	GeoResources, LLC	9/24/20	1:55
Received by:	**Company:**	**Date:**	**Time:**
Marie Holt	Spectra	9-24-20	1:55

Payment Terms: Net 30 days for clients with existing accounts. New clients or one time clients must pay for analysis at the time samples are delivered to the Lab. Past due accounts subject to 18% per annum interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other associated costs of collection regardless of whether suit is filed.

SPECTRA LABORATORIES

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CHAIN OF CUSTODY

NAME GeoResources, LLC

ADDRESS 4809 Pacific Hwy E, Fife, WA 98424

PHONE # (253) 896-1011 FAX #

E-MAIL SethM@georesources.us; KeithS@georesources.us; AndrewS@georesources.us;

SAMPLE ID:	DATE SAMPLED	TIME SAMPLED	MATRIX	Arsenic $37.00	Arsenic & Lead $44.00	Arsenic, Lead, and Cadmium $52.00		NORMAL	RUSH (50% Surcharge)
HA 11, D= 0-6"	9/23/20		Soil		X				
HA 12, D= 0-6"	9/23/20		Soil		X				
HA 13, D= 0-6"	9/23/20		Soil		X				
HA 14, D= 0-6"	9/23/20		Soil		X				
HA 15, D= 0-6"	9/23/20		Soil		X				
HA 16, D= 0-6"	9/23/20		Soil		X				
HA 17, D= 0-6"	9/23/20		Soil		X				
HA 18, D= 0-6"	9/23/20		Soil		X				
HA 19, D= 0-6"	9/23/20		Soil		X				
HA 20, D= 0-6"	9/23/20		Soil		X				

Relinquished by:	Company:	Date:	Time:
Andrew Schnitger	GeoResources, LLC	9/24/20	1:55
Received by:	**Company:**	**Date:**	**Time:**
Marie Holt	Spectra	9-24-20	1:55

Payment Terms: Net 30 days for clients with existing accounts. New clients or one time clients must pay for analysis at the time samples are delivered to the Lab. Past due accounts subject to 18% per annum interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other associated costs of collection regardless of whether suit is filed.

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CHAIN OF CUSTODY

NAME GeoResources, LLC

ADDRESS 4809 Pacific Hwy E, Fife, WA 98424

PHONE # (253) 896-1011 FAX #

E-MAIL SethM@georesources.us; KeithS@georesources.us; AndrewS@georesources.us;

SAMPLE ID:	DATE SAMPLED	TIME SAMPLED	MATRIX	Arsenic $37.00	Arsenic & Lead $44.00	Arsenic, Lead, and Cadmium $52.00		NORMAL	RUSH (50% Surcharge)
HA 21, D= 0-6"	9/23/20		Soil		X				
HA 22, D= 0-6"	9/23/20		Soil		X				
HA 23, D= 0-6"	9/23/20		Soil		X				
HA 24, D= 0-6"	9/23/20		Soil		X				
HA 25, D= 0-6"	9/23/20		Soil		X				
HA 26, D= 0-6"	9/23/20		Soil		X				
HA 27, D= 0-6"	9/23/20		Soil		X				
HA 28, D= 0-6"	9/23/20		Soil		X				
HA 29, D= 0-6"	9/23/20		Soil		X				
HA 30, D= 0-6"	9/23/20		Soil		X				

Relinquished by:	Company:	Date:	Time:
Andrew Schnitger	GeoResources, LLC	9/24/20	1:55
Received by:	**Company:**	**Date:**	**Time:**
Marie Holt	Spectra	9-24-20	1:55

Payment Terms: Net 30 days for clients with existing accounts. New clients or one time clients must pay for analysis at the time samples are delivered to the Lab. Past due accounts subject to 18% per annum interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other associated costs of collection regardless of whether suit is filed.

SPECTRA LABORATORIES

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CHAIN OF CUSTODY

9
20200807 81
MAN

NAME GeoResources, LLC

ADDRESS 4809 Pacific Hwy E, Fife, WA 98424

PHONE # (253) 896-1011 FAX #

E-MAIL SethM@georesources.us; KeithS@georesources.us; AndrewS@georesources.us;

SAMPLE ID:	DATE SAMPLED	TIME SAMPLED	MATRIX	Arsenic $37.00	Arsenic & Lead $44.00	Arsenic, Lead, and Cadmium $52.00		NORMAL	RUSH (50% Surcharge)
HA 31, D= 0-6"	9/23/20		Soil		X				
HA 32, D= 0-6"	9/23/20		Soil		X				
HA 1, D= 6-12"	9/23/20		Soil		X				
HA 4, D= 6-12"	9/23/20		Soil		X				
HA 8, D= 6-12"	9/23/20		Soil		X				
HA 12, D= 6-12"	9/23/20		Soil		X				
HA 16, D= 6-12"	9/23/20		Soil		X				
HA 20, D= 6-12"	9/23/20		Soil		X				
HA 24, D= 6-12"	9/23/20		Soil		X				
HA 28, D= 6-12"	9/23/20		Soil		X				

Relinquished by:	Company:	Date:	Time:
Andrew Schnitger	GeoResources, LLC	9/24/20	1:55
Received by:	**Company:**	**Date:**	**Time:**
Marie Holt	Spectra	9-24-20	1:55

Payment Terms: Net 30 days for clients with existing accounts. New clients or one time clients must pay for analysis at the time samples are delivered to the Lab. Past due accounts subject to 18% per annum interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other associated costs of collection regardless of whether suit is filed.

SPECTRA LABORATORIES

2221 Ross Way • Tacoma, WA 98421• (253) 272-4850 • Fax (253) 572-9838

CHAIN OF CUSTODY

NAME GeoResources, LLC

ADDRESS 4809 Pacific Hwy E, Fife, WA 98424

PHONE # (253) 896-1011 FAX # _____

E-MAIL SethM@georesources.us; KeithS@georesources.us; AndrewS@georesources.us;

SAMPLE ID:	DATE SAMPLED	TIME SAMPLED	MATRIX	Arsenic $37.00	Arsenic & Lead $44.00	Arsenic, Lead, and Cadmium $52.00		NORMAL	RUSH (50% Surcharge)
HA 32, D= 6-12"	9/23/20		Soil		X				
Composite 1	9/23/20		Soil		X				
Composite 2	9/23/20		Soil		X				
Composite 3	9/23/20		Soil		X				
Composite 4	9/23/20		Soil		X				

Relinquished by:	Company:	Date:	Time:
Andrew Schnitger	GeoResources, LLC	9/24/20	1:55
Received by:	**Company:**	**Date:**	**Time:**
Marie Holt	Spectra	9-24-20	1:55

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