

Memorandum

DATE: August 31, 2022

TO: Drew Rankin – WSDOT

FROM: Mike Bagley, LHG – PBS Eng. + Env.
Kevin Hood, CPESC - PBS Eng. + Env.

REGARDING: Poulsbo RV Shallow Soil Sampling Plan

According to the Washington Department of Ecology (Ecology), the Asarco Company operated a copper smelter in the Point Defiance area of Tacoma for almost 100 years. Air pollution from the smelter settled on the surface soils over more than 1,000 square miles of the Puget Sound basin. Arsenic, lead, and other heavy metals are still in the soil because of this pollution. Concentrations of arsenic are known to exist within the aerial plume, which includes the project site, above the MTCA Method A cleanup standard of 20 mg/kg in soil at depths of 0 to 12 inches below ground surface. The Poulsbo RV site is mapped by Ecology in a zone with a predicted arsenic concentration range of 20 to 40 mg/kg. Accordingly, shallow soil samples will be collected from the area disturbed during planned soil remediation associated with a petroleum contamination issue at the site.

Sample Locations

Samples should be obtained from each of the 16 planned sampling location laid out in the attached figure (see Figure 1). Sampling will be carried out using hand tools. Samples should generally be obtained at a depth 3 to 6 inches below top of native soil surface. At locations with vegetation/turf, hardscape (asphalt, concrete, etc.), or fill soils (gravel road base and built-up structural fill soils associated with roads), samples should be obtained at a depth of 3 to 6 inches below the depth at which native soils are first encountered. At 25% of all other sample locations (4 locations, in this case), an additional soil sample should be obtained at a depth of 6 to 12 inches below ground surface (i.e. 6 inches below the first soil sample). A total of 20 samples will be collected.

Sampling Personnel

Trained environmental personnel or Atkinson's Environmental Consultant (PBS) will perform soil sampling.

Sample Collection

Soil samples will be collected by filling laboratory-provided containers for specific analysis. For the purpose of total arsenic and lead analysis, soil will be collected in a single 4-oz jar.

Sample personnel will wear new disposable nitrile gloves for collection of each sample to protect against cross-contamination between samples. All non-disposable components of the sampling equipment (e.g. split spoon, hand augers, shovels, spoons, or other equipment) used to collect samples that contact the soil will be decontaminated prior to, and in between, collection of individual samples as follows:

- Scrub with potable water containing Alconox/Liquinox detergent
- Potable water rinse/deionized (DI) water rinse

Each soil sample should be labeled using a Unique Sample ID.

- *Location_Depth_Time_Date*

Soil samples intended for metals analysis will be packed with care to avoid breakage in containers (typically coolers) under chain-of-custody documentation for transport to the analytical laboratory. Chain of custody documents will be provided by the Environmental Consultant, and relevant field information such as sample collection times should be filled in by the sampling personnel. Additionally, the sampling personnel should sign and date the chain of custody document when it is transferred to a parcel carrier or the project laboratory and send a copy to the Environmental Consultant.

Sampling Analysis Procedures

Samples will be analyzed for the following:

- Total Metals (arsenic and lead) by EPA Method 6020A

Analytical results will be provided to Ecology per an existing understanding with WSDOT.

Attachment: Figure 1: Proposed As/Pb Soil Sampling Locations – August 2022

cc: Archie Kollmorgen – Atkinson Construction








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PROPOSED As/Pb SOIL SAMPLING LOCATIONS - AUGUST 2022

23051 Military Road South, Kent, Washington

CLIENT: ATKINSON CONSTRUCTION | DATE: AUG 2022 | PROJECT: 40757.022

FIGURE: 1

-  Proposed As/Pb Sample Locations
-  Site Boundary
-  Existing Right-of-Way Boundary
-  Proposed New Right-of-Way Boundary
-  Proposed Remedial Excavation (approx. 0.08 acres)



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