DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 8, 2018	**WEATHER:** Mostly Sunny, High ~75 degrees F

Personnel and Visitors Onsite:
Research vessel Discovery – CDM Smith: Jason Silvertooth; AECOM: Nicky Moody; Geosyntec: Alison Clements; Gravity Marine: Mike Duffield, Ed Sloan

Research vessel Cayuse – CDM Smith: Julee Trump; AECOM: Mark Tauscher; Geosyntec:Erin Dunbar; Gravity Marine: Peter Jenkins, Jeff Schut

Planned Activity:

- Collect surface sediment samples at SMA and co-located core locations near River Mile (RM) 3.8 E in a slip adjacent to the Schnitzer site and near RM 5.7 (navigation channel and east)

Activity Completed:
A tailgate safety meeting was led by AECOM. Topics discussed included hydration, sun protection, and avoiding complacency during long field campaigns.

Jason Silvertooth performed oversight of surface sediment sampling near RM 3.8 E of the Willamette River from 08:00 to 17:15 on board the Discovery. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 pile at the Fred Devine property. GPS coordinates were within 1.6 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from four SMA and co-located core sampling locations, as summarized below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.
- A duplicate sample was collected at PDI-SG-S031, an MS/MSD was collected at PDI-SG-S032, and an equipment rinsate was collected.

Julee trump performed oversight of surface sediment sampling from 08:00 to 17:10 on board the Cayuse. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- Position checks at PH-2 indicated that the vessel GPS was reading within 1.3 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from 5 sediment management area (SMA) locations near RM 5.5 and 5.9 as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
- A rinsate blank was collected at the end of day
- Fathometer readings were checked against lead weight measurements. Gravity indicated the greatest deviation between the measurements has been about 0.25 ft on the Tieton, which is within the variation of the bow's vertical position which does influence depth measurements.

Status of Schedule & Priority Work:

- Sampling will continue tomorrow with SMA and co-located core sampling locations.
- Sampling on some private property locations will continue to occur at locations with property access agreements.
- Sample locations in areas of known/encountered heavy sheen contamination are planned to be skipped and returned to with support from NRC Environmental Services to contain sheen during sampling.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):
Sampling at the following locations was attempted on the Cayuse, but no samples were collected

- SG-S092 – 7 rejected grabs: 5 grabs washed out due to rocks in open jaws, 1 grab was unsampleable with only about 3 cm of recovery, and 1 grab recovered 15 cm of sandy silt, but flowing dark brown sand/fines ran through closed jaws leaving voids in the recovered sediment.
- SG-S085 – 6 grab attempts were made, but the sampler fell over at each attempt due to uneven river bed and/or strong wind gusts pushing the boat during sampling. No grabs were recovered. Location is planned to be sampled at a later date.

As listed below, the Cayuse crew sampled SG-084 using grabs with recoveries of 19, 21, and 22 cm which is not consistent with the EPA's method for sampling hard sediment or the FSP. Julee Trump reminded them of the 20 cm acceptance criteria in the FSP, and EPA's method. Geosyntec said that the sample would be archived in hopes that it could be used if EPA approves their proposed sampling method.

At difficult locations, collection and processing composite samples can take up to 2 hours at locations with difficult grab recovery, leaving the sample exposed to air before it is jarred and placed on ice. As temperatures are getting warmer and with increased sampling time, this could become an issue. The field crew has mentioned this time issue, but has not offered any solutions other than just going faster, which may not always be feasible.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Discovery, sediment samples were collected at the following locations at approximate RM 3.8 E:

- PDI-SG-S032 – Co-located core location, within 25 ft radius, silty sand
- PDI-SG-S031– Co-located core location, within 25 ft radius, silt
- PDI-SG-S030 – Co-located core location, within 25 ft radius, sandy silt
- PDI-SG-S029 – SMA, within 25 ft radius, silt

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

On the Cayuse, the following surface sediment samples were collected at SMA and co-located core sampling locations near RM 5.7:

- PDI-SG-S081 (Thick sample) – Within 25 ft radius, sand with clams, trace woody debris, silt lenses
- PDI-SG-S081-Archive (Thin sample) – Within 25 ft radius, sand with clams, trace woody debris, silt lenses, globules of sand with hydrocarbon/petroleum odor
- PDI-SG-S083 – Within 25 ft radius, sandy Silt over dense black sand, trace metallic sheen, mild petroleum odor, trace woody debris, rubber band, sand globules
- PDI-SG-S084-Archive (Thin sample) – Within 25 ft radius, sandy silt with trace organics
- PDI-SG-S084 (held for archive) – sampled with one grab <20 cm within the 50 ft radius, Brown over black sand, trace woody debris, several clams
- PDI-SG-S093 – Within 25 ft radius, sandy silt with trace organics, located just downstream of bridge footing

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

Photographs of work were taken throughout the day on board the Discovery and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP. No major sheen was observed.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
Wind picked up in the afternoon and dust and welding fumes from the Schnitzer steel site started to blow over the sample area in the slip near RM 3.8 E. The field crew decided to stop sampling in that area and to return when winds are calm.

Signature: Jason Silvertooth, Julee Trump **DATE** May 8, 2018