Hilcorp Alaska, LLC

Soil Management Plan
Boiler Building Feedwater Piping Replacement
Excavation Activities
Swanson River Field Plant Area

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This document has been prepared by Jacobs Engineering. The material and data in this report were prepared under the supervision and direction of the undersigned.

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1 SCOPE AND APPLICATION

This Soil Management Plan describes the procedure by which Hilcorp Alaska, LLC (Hilcorp) will manage the excavation of approximately 10 to 12 cubic yards of potentially PCB-contaminated soil. Excavation is needed to replace feedwater piping between the Boiler Building and the HOA Main Office. This project is located in the Swanson River Field plant area, presented on the attached Figure 1.

A trench will be excavated to replace the piping. Soil generated from trenching activities has the potential to be PCB-contaminated based on the proximity of the proposed excavation area to transformers located to the east and potential releases of PCB-containing liquids at the site. The trench will be approximately 100 feet long, 18 inches wide, and 24 inches deep, as shown in the attached Figure 2.

2 PROCEDURES

2.1 SAMPLING

Prior to beginning trench excavation activities, the soil within the proposed excavation area will be characterized to determine the in-place concentration of PCBs. An Incremental Sampling Methodology (ISM) approach will be used to characterize the in-place soil following guidance described in *Incremental Sampling Methodology* prepared by the Interstate Technology & Regulatory Council (ITRC) (ITRC 2012) and the *Incremental Sampling Methodology at PCB Cleanup Sites* prepared by the U.S. Environmental Protection Agency (EPA) (EPA 2019).

The decision unit will be defined as the proposed excavation area, which is a 100-foot long by 18-inch wide by 24-inch deep trench. A total of 30 sub-sample locations will be selected from within the decision unit. A random number generator will be used to the select the x, y, and z location for each sub-sample. A primary, duplicate, and triplicate sample will be collected by taking three aliquots at each sub-sample locations and combining them into three separate sample containers (zip-top bags), homogenizing the samples after all 30 sub-samples have been collected. The sample containers will be labeled with the following information to prevent misidentification:

- Project code or number
- Sampling date and time
- Sample number
- Super sack number
- Sampler's initials
- Analyses requested

Applicable ADEC-approved sample custody and collection protocols and analytical methods will be used (ADEC 2019a). Sample containers will have labels that display the

same information as reported on the chain-of-custody (CoC) records. At the time of sampling, appropriate sample numbers will be recorded in the field logbook.

The soil making up the pad material is a fairly homogeneous media, and therefore particle size reduction will not be necessary. The laboratory will gain homogenize the samples and spread the sample material onto a tray in order to collect sub-samples for the analytical aliquot. The laboratory will collect 30 1-gram sub-samples to make up the analytical aliquot for each of the primary, duplicate, and triplicate samples. The samples will be analyzed by method SW8082.

The analytical sample results will be compared to the ADEC cleanup level of 1 mg/kg. If any one of the primary, duplicate, or triplicate sample concentrations exceed 1 mg/kg, all soil within the proposed excavation area will be considered contaminated and will be containerized and shipped off-site for disposal. If the results of the primary, duplicate, and triplicate samples are all less than 1 mg/kg, the soil will be returned to the excavation area following the piping replacement.

2.2 EXCAVATION

Soil removal will be undertaken using a small excavator or similar machinery, operated by competent staff donning the appropriate levels of personal protective equipment (PPE), as outlined in Section 3 of this document. If the results of the ISM samples indicate that the soil within the excavation has PCB concentrations greater than 1 mg/kg, the soil will be transferred directly from the excavation into super sacks. The super sacks will be staged in a lined containment area within the facility perimeter fence. At the time of excavation approximate volumes of soil will be recorded in the field logbook. If the results of the ISM samples indicate that the soil within the excavation has PCB concentrations less than 1 mg/kg, the excavated soil will be placed adjacent to the excavation area for later use as backfill.

Once the soil has been removed and the piping replaced, the excavation will be backfilled with either the original soil or clean soil or gravel depending on the sample results described above.

If unknown hydrocarbon contamination is encountered during the excavation activities, Hilcorp field personnel will notify all applicable regulatory agencies in accordance with Hilcorp's standard spill reporting guidelines.

2.3 DECONTAMINATION

In general, disposal equipment will be used during the sample collection activities. A hand auger, hammer drill powered sampler, or similar will be used to collect the deeper sub-samples. On gross decontamination is necessary between the sub-sample locations because they are all being collected from a single decision unit. Following the completion of sampling activites the disposal sampling equipment will be staged onsite pending the analytical results. If the analytical results exceed 1 mg/kg the disposable sampling equipment will be disposed of with the contaminated soil, if less than 1 mg/kg they will be disposed of as general trash. The hand auger, hammer drill powered sampler, or similar will be decontaminated by spraying the equipment down with an Alconox (or similar) and

water solution and wiping it down with paper towels to minimize water generation. The used decontamination materials will be stored and disposed of in the sample manner as the disposable sampling equipment.

If the PCBs are identified in the soil at concentrations greater than 1 mg/kg, the following decontamination procedures will be utilized during excavation. Upon the completion of the excavation, used disposable PPE will be placed with the contaminated soil. The used PPE will be disposed of with the soil.

The excavation equipment used during trenching activities will be decontaminated in accordance with Hilcorp's standard operating procedures. Any wastewater created by decontamination will be disposed of with the soil waste.

2.4 WASTE TRANSPORT AND DISPOSAL

The super sacks containing the contaminated soil will be transported off site to an approved disposal facility. Hilcorp will submit for approval a Transport, Treatment, & Disposal Approval Form for Contaminated Media to ADEC before the waste is transported off site.

3 HEALTH AND SAFETY

When handling contaminated soil, the onsite personnel will use level D PPE consisting of hardhats, hi-vis safety vests, safety toe boots, safety glasses, and gloves appropriate to the task. If dust becomes a hazard, Tyvek suits and dust masks will also be worn. When sampling, disposable nitrile gloves and clean stainless steel sampling spoons will be used to prevent exposure to site contaminants and cross-contamination between samples.

4 REPORTING

Hilcorp will provide a letter to the necessary regulatory agencies summarizing all documentation of analytical sample results (including an ADEC Laboratory Data Review Checklist [ADEC 2019b]) and waste transport and disposal information, as applicable.

5 REFERENCES

ADEC (Alaska Department of Environmental Conservation). 2019a (October). *Field Sampling Guidance for Contaminated Sites and Leaking Underground Storage Tank Sites.*

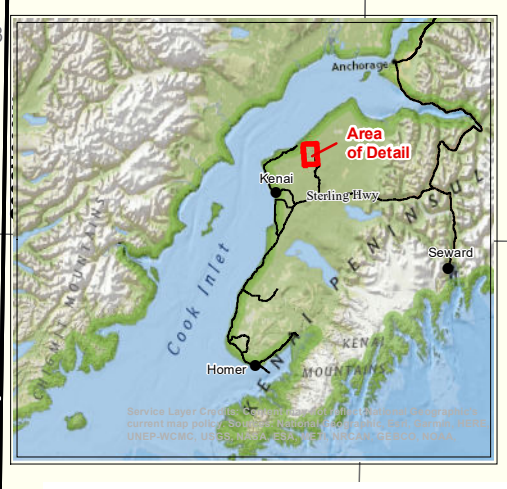
ADEC. 2019b (October). *Minimum Quality Assurance Requirements for Sample Handling, Reports, and Laboratory Data.*

ADEC. 2018 (October). *Oil and Other Hazardous Substances Pollution Control.* 18 AAC 75.

U.S. EPA (U.S. Environmental Protection Agency). 2019 (August). *Incremental Sampling Methodology at PCB Cleanup Sites.*

ITRC (Interstate Technology & Regulatory Council). 2012 (February). *Incremental Sampling Methodology*.

FIGURE 1
Overview Map



Legend

- Project Location
- Sale Pipelines
- Major Roads
- KPB Roads and Trails
- Existing Well Pads
- Oil and Gas Unit Boundary

150°56'0"W 150°52'0"W 150°48'0"W

60°48'0"N 60°46'0"N 60°44'0"N 60°42'0"N

S008N010W S007N010W S008N009W S007N009W

SWANSON RIVER FIELD

SWANSON RIVER UNIT

SOLDOTNA CREEK UNIT

KENAI NATIONAL WILDLIFE REFUGE

Project Location

Swanson River

Swanson River Rd

Mink Creek

Hilcorp Alaska, LLC
3800 Centerpoint Dr. Ste. 1400
Anchorage, AK 99503

Map Date: 5/24/2019

Swanson River Field
Plant Area
Proposed Fence Expansion Overview

Map Scale 1:32,000

Alaska State Plane 4 NAD 1983 (feet)

0 0.5 1 Miles

N

Document Path: O:\Alaska\GIS\cook_inlet\fields\SRF\MXDs\SRF_Proposed_2019\mxds\SRF_PlantArea_FenceExpansion_Overview_11x17P_v01.mxd

FIGURE 2
Proposed Feedwater Piping Excavation Area

Hilcorp Alaska, LLC
Map Date: 7/7/2020

N

Swanson River Field
Plant Area
Proposed Underground Piping Location

1 inch = 25 feet

Alaska State Plane 4 NAD 1983 (feet)

0 10 20 40 Feet