



May 3, 2021

Ms. Carey Foster
North Star Paving and Construction, Inc.
35743 Kenai Spur Hwy Ste A
Soldotna, AK 99669

RE: Groundwater Sampling and Soil Sampling and Removal Workplan – North Star Pit

Dear Ms. Foster:

Trihydro Corporation (Trihydro) is submitting this work plan for a 2021 Groundwater Sampling Event, and soil stockpile characterization sampling followed by soil stockpile disposal.

On August 20, 2020, Trihydro completed groundwater sampling as a follow-up to previous onsite work, including Phase I and Phase II Site Investigations (completed by Tauriainen Engineering & Testing (TET)) and a Site Characterization Report completed by Travis/Peterson Environmental Consulting, Inc. (TPECI). On September 20, 2020, Trihydro directed impacted soil removal and stockpiling in accordance with a Site Closure Plan prepared by TET dated July 9, 2020 (TET Plan). Closure sampling results are summarized in the Groundwater and Soil Sampling Report prepared by Trihydro dated November 18, 2020.

The Alaska Department of Environmental Conservation (ADEC) March 3, 2021, response to the 2020 Groundwater and Soil Sampling Report, requested a workplan to further delineate groundwater flow direction and collect additional groundwater samples from the existing well network.

Results of August 2020 groundwater sampling showed diesel-range organics (DRO) detected in MW-5, and residual-range organics (RRO) detected in MW-1 and MW-5. All other 2020 sample analytes were below detection levels. This Work Plan directs a groundwater gauging and sampling from existing site wells, and soil stockpile sampling to delineate and direct eventual removal of soil stockpiles.

SCOPE OF WORK

Groundwater Sampling

Groundwater samples will be collected from the four groundwater monitoring wells (MW-1, MW-3, MW-4, and MW-5) previously installed by TPECI and located near the former injection well. Monitoring well MW-2 was destroyed during the soil excavation and was decommissioned in accordance with the 2013 ADEC Monitoring Well Guidance.

Groundwater levels will be gauged prior to sampling. Following gauging, a groundwater sampling pump will be inserted in the well and field parameters including temperature, conductivity, pH, turbidity, oxidation reduction potential, and dissolved oxygen will be measured in the well purge



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water. Groundwater samples will be collected after field parameters stabilize, in accordance with the 2019 ADEC Guidance. Groundwater samples will be submitted to SGS Laboratory in Anchorage, Alaska, for the following analyses:

- Gasoline-range organics (GRO) by AK101
- Diesel-range organics (DRO) by AK102
- Residual-range organics (RRO) by AK103

Soil Sampling

Trihydro will follow 2019 ADEC Guidance Table 2A for stockpile soil sampling, summarized below.

By Volume (cubic yards)	Number of Screening Samples	Associated Number of Laboratory Samples
0-10	5	1
11-50	5	2
51-100	1 per 10 cy	3
More than 100	1 per 10 cy	3, plus one sample for each additional 200 cubic yards.

Trihydro will utilize a photoionization detector (PID) to screen soil samples for heated headspace. During the September 2020 soil sampling event, soils were segregated into two stockpiles, per the TET Plan. Soils with PID detections above 10 parts per million (ppm) were isolated in a ‘contaminated’ stockpile on asphalt, to the southwest of the excavation pit and clean soils were stockpiled to the east of the excavation pit. A third, pre-existing ‘contaminated’ stockpile, derived from the leach field piping removal excavation, is located to the north of the excavation pit. Stockpile locations and groundwater monitoring wells are presented on Figure 1.

Soil samples will be submitted to SGS Laboratory in Anchorage, Alaska, for the following analyses:

- Diesel-range organics (DRO) by AK102
- Residual-range organics (RRO) by AK103
- Volatile organic compounds (VOCs) by 8260
- Semi-volatile organic compounds (SVOCs) by 8270



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Soil Removal

Excavated soils contaminated with petroleum hydrocarbons will be taken to a contaminated sites program (CSP) approved facility for treatment, following permission from CSP. Soils with low level contamination (below ADEC migration to groundwater cleanup levels) will be taken to Kenai Peninsula Borough Landfill, pending landfill approval. If results are non-detect, soils will be spread on site.

Schedule

Trihydro proposes the following schedule:

- Groundwater and soil sampling – Week of May 17
- Soil removal requests – Week of June 14
- Soil removal – Week of July 5
- Report to ADEC – by August 31

If you have any questions, please contact me at (907) 262-2315.

Sincerely,
Trihydro Corporation

Joe McElroy, P.E.
Project Engineer

74A-001-001

Attachment

FIGURE

C:\USERS\BUNES\TRIHYDRO\NORTH STAR PAVING & CONSTRUCTION - DOCUMENTS\CADD\NORTHSTARPAVING

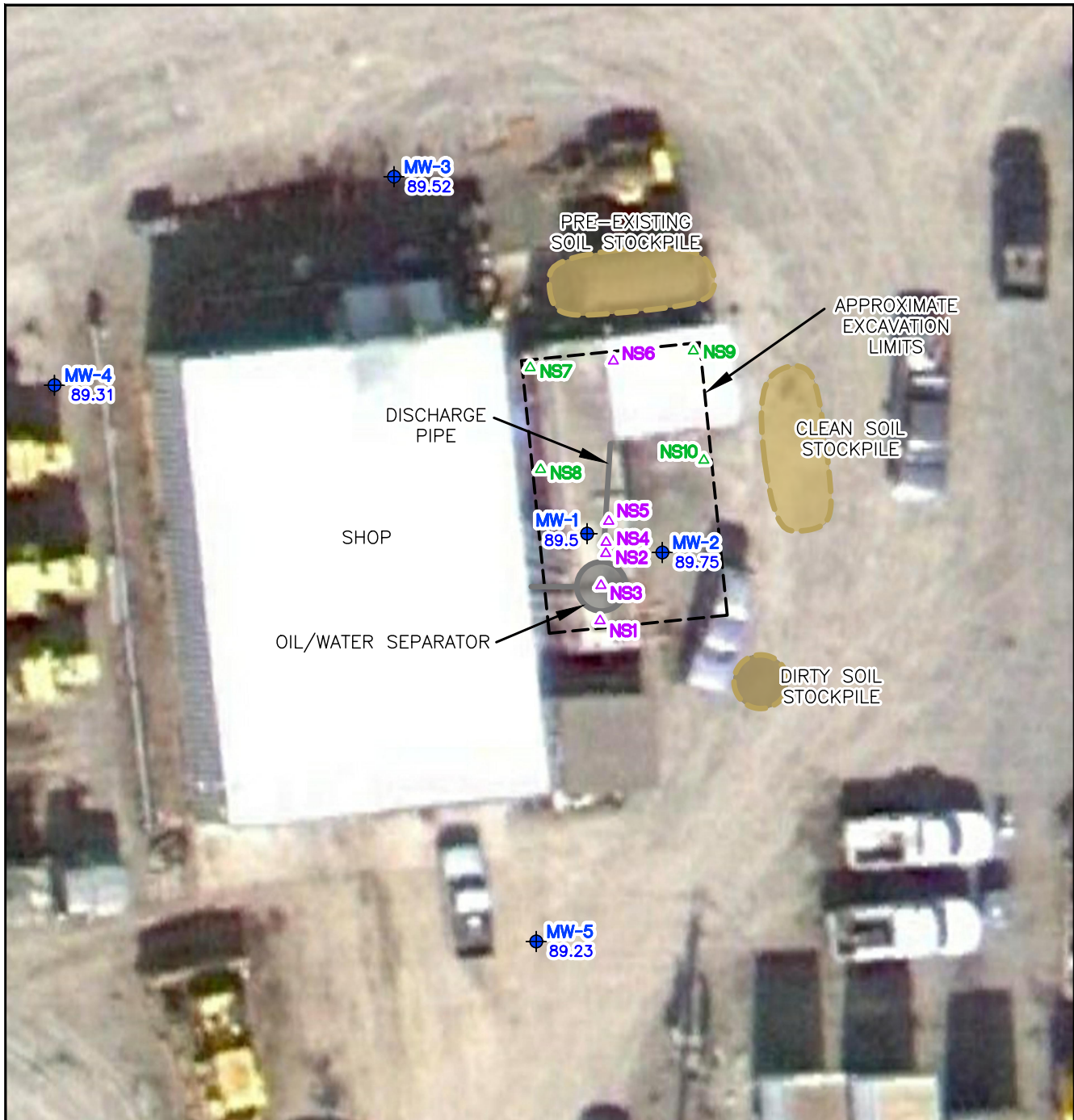


Image Cite: Google Earth

EXPLANATION

● EXISTING MONITORING WELL LOCATION AND DESIGNATION (INSTALLED DURING PHASE 2 INVESTIGATION)

▲ BOTTOM OF EXCAVATION SAMPLE LOCATION

▲ SIDE WALL SAMPLE LOCATION

* MW-2 DESTROYED DURING EXCAVATION



0 20'

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FIGURE 1

SAMPLE LOCATION MAP

**NORTH STAR PIT SITE
SOLDOTNA, ALASKA**

Drawn By: BJ

Checked By: BF

Scale: 1" = 20'

Date: 10/12/2020

File: NORTHSTARPAVING