



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 155
Seattle, WA 98101

ENFORCEMENT &
COMPLIANCE ASSURANCE
DIVISION

Reply To: 20-C04

RETURN RECEIPT REQUESTED

Ms. Carey Foster
President
North Star Paving & Construction, Inc.
P.O. Box 494
Soldotna, Alaska 99669

Re: Conditional Closure of One Motor Vehicle Waste Disposal Well at North Star Paving Construction, Inc.
Underground Injection Control ID No. AK122PS-30-13955
Consent Agreement and Final Order No. SDWA-10-2021-0002

Dear Ms. Foster:

On December 1, 2021, the U.S. Environmental Protection Agency (EPA), Region 10 Underground Injection Control Program ("UIC Program"), received from you a copy of the *North Star Paving Construction, Inc. (North Star) North Star Pit Motor Vehicle Waste Disposal Well (MVWDW) Closure Report ID No. AK122PS-30-13955, Soldotna, Alaska*, for the closure of one MVWDW at 44251 Frontier Avenue, Soldotna, Alaska. This closure report, which was compiled by Trihydro Corporation, was submitted in response to the above referenced Consent Agreement and Final Order (CAFO) and describes the work conducted at the facility following the closure plan submitted to the EPA on July 9, 2020 and approved on August 27, 2020.

Site Listing

Prior to purchasing the property, Knik Construction, Inc. performed due diligence Phase I and Phase II investigations at the property. A January 31, 2020, letter from Travis/Peterson Environmental Consulting, Inc. to Knik Construction Company, Inc. summarized results of the Phase II sampling. The investigations noted petroleum contamination below the leach field pipe in the drain rock with diesel range organics (DRO) at 54,300 milligram per kilogram (mg/kg) and residual range organics (RRO) at 333,000 mg/kg. The Alaska Department of Environmental Conservation (ADEC) cleanup level for DRO is 250 mg/kg and for RRO is 11,000 mg/kg. Upon receipt of the investigations, the State of Alaska sent a notification-hazardous substance liability letter to North Star dated February 26, 2020. ADEC is currently overseeing the related cleanup effort.

Well Description and Location

The North Star welding and maintenance shop was associated with a gravel mining pit. The shop was built by North Star in 1999. The MVWDW consisted of a shop floor drain connected to an oil/water separator, which was piped to a deep trench style leach field. As the oil/water separator was not maintained appropriately, petroleum and solvent contaminants collected in the vault were allowed to flow through to the adjacent soils and groundwater. The shop floor drain consisted of a six foot long by

14-inch-deep sump in the floor and connected to a 4-inch ABS pipe. This pipe exited the building sidewall and drained to a concrete oil/water separator tank which was located outside of the building and was connected to 10 linear feet of deep trench leach field fed by a 4-inch diameter perforated pipe. A Phase I Environmental Assessment identified the motor vehicle waste disposal well and a Phase II Environmental Assessment and subsequent groundwater monitoring identified contamination from the well to both soil and groundwater.

Closure Activities

Contaminated liquid, sludge and oil was removed from the floor drain sump, piping and the oil/water separator. The oil/water separator was removed along with approximately eight cubic yards of contaminated soil. The manhole and piping were cleaned and disposed of at the Kenai Borough Landfill. The remaining piping to the shop floor drains was pressure tested for leaks and none were found. The results of the pressure testing concluded that the floor drains were connected solely to the oil/water separator. All material from the oil/water separator was removed by U.S. Ecology National Response Corporation on September 14, 2020, which consisted of approximately 76 gallons of oily water. Piping upstream of the oil/water separator was capped and the piping between the floor and drain were capped with concrete slurry, preventing future discharge from the sump. In January and September 2020, the leach field and oil/water separator were excavated. During excavation, soils were separated based on photo-ionization detection (PID) screening results with any detections above ten parts per million segregated into an “impacted” stockpile. Impacted soil was sampled and disposed at the Kenai Borough Landfill October of 2021. Excavation of contaminated soil was limited by groundwater at approximately twelve feet below ground surface (bgs) and by concrete and asphalt building structures. In October 2021 two drums of labeled investigation derived waste (IDW) were inadvertently drained into the former MVWDW due to miscommunication. The drums contained approximately 42 gallons of well development wastewater and 22.5 gallons of purge sampling water. Calculations based on detected concentrations noted there were approximately two to three grams of total petroleum hydrocarbons present in the IDW drums. This was self-disclosed by North Star and preventive measures were put in place to avoid further potential contamination.

Soil Sampling

Following excavation of the oil/water separator and the most impacted soil, 10 confirmation soil samples were collected from the side walls and floor of the excavation. Most of the semi-volatile organic compounds (SVOCs), RRO and volatile organic compound (VOC) concentrations were below detection limits at the sample locations, except for one location on the excavation floor beneath the end of the leachfield piping. The analyzed sample noted several exceedances of migration to groundwater cleanup values. Sample result exceedances included concentrations of naphthalene at 351 mg/kg, with an ADEC cleanup level of 0.038 mg/kg, 1-methylnaphthalene at 1.2 mg/kg, with an ADEC cleanup level of 0.41 mg/kg and 2-methylnaphthalene at 1.35 mg/kg with an ADEC cleanup level of 1.30 mg/kg. Additionally, DRO for two samples located on the excavation floor between two monitoring wells noted concentrations at 1700 mg/kg and 1530 mg/kg with the ADEC migration to groundwater cleanup criteria at 250 mg/kg. The remaining “impacted” stockpile was sampled in 2021 for disposal at the Kenai Borough Landfill. The impacted stockpile was identified as approximately 8 cubic yards and six PID screenings were taken. Based on PID results and Kenai Borough Landfill requirements, one sample was taken at the location of the highest PID screening. The sample was analyzed for VOCs, DRO, RRO and SVOCs. DRO was present at 572 mg/kg and RRO at 921 mg/kg. All other analytes were non-detect. At

the request of Kenai Borough Landfill via phone call, the stockpile was additionally sampled for GRO and Resource Conservation and Recovery Act toxicity characteristic leaching procedure metals in September 2021. All results were non-detect except for low level barium at 0.333 mg/L.

Groundwater Sampling

In April 2020, five groundwater monitoring wells were installed to characterize potential groundwater impacts associated with the MVWDW. Initial sampling of the groundwater monitoring wells noted MW-1, located to the northwest of the oil/water separator, had RRO concentration of 3.40 mg/L, which is above the ADEC groundwater cleanup criteria of 1.1 mg/L. MW-5, located to the south of the oil/water separator, measured elevated concentrations of DRO (1.80 mg/L) and RRO (5.09 mg/L), both above the ADEC groundwater cleanup criteria of 1.1 mg/L for RRO and 1.5 mg/L for DRO. MW-2 was damaged and decommissioned during MVWDW excavation activities in September 2020.

In July of 2021, Trihydro performed groundwater sampling on the four remaining groundwater wells, MW-1, MW-3, MW-4 and MW-5, to satisfy ADEC contaminated site requirements and assess results of MVWDW removal efforts. Groundwater flow direction appeared to flow east-northeast based upon survey data from 2021. Gasoline range organics (GRO), DRO and RRO were not detected above the laboratory detection level in any samples collected from site monitoring wells in 2021.

Conditional Closure

The EPA has reviewed the information provided regarding UIC Class V closure activities at the North Star facility. Pursuant to the EPA's authorities under 40 C.F.R. §§ 144 and 146, the EPA conditionally approves the closure of the MVWDW at North Star with the condition that North Star continue to work with the ADEC's Contaminated Sites Program (CSP) to address the remaining contamination from the injection system. North Star is expected to coordinate and cooperate with the ADEC CSP to develop an appropriate scope of work to further evaluate the vertical and lateral extent of remaining contamination in soil and groundwater associated with the MVWDW.

North Star is responsible for meeting all applicable UIC requirements under the Safe Drinking Water Act. Please note that this approval does not impact North Star's obligation to comply with other federal, state or local laws or the EPA's authority to take future enforcement actions at the North Star facility. If additional information becomes available indicating that the IW closure activities at this facility were inadequate, then you are required to provide additional information to the EPA and further efforts may be required in the future.

If you have any questions, please contact Donna Ortiz, at (206) 553-2429 or Ortiz.Donna@epa.gov.

Sincerely,

Peter Contreras, Chief
Field, Data and Drinking Water Enforcement Section

cc: Mr. Peter Campbell
ADEC Contaminated Sites Program

Mr. David Wilfong
ADEC Wastewater Authorization Discharge Program