THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova Street
Anchorage, Alaska 99501-2617
Phone: 907.269.8685
Fax: 907.269.7687

File: 330.38.029

January 23, 2020

Electronic Delivery Only
Janine Boyette
Response and Remediation SME
Alyeska Pipeline Service Company
PO Box 196660, Mail Stop 507
Anchorage, AK 99519

Re: Decision Document: Alyeska OMS 135-2
Cleanup Complete Determination

Dear Ms. Boyette:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Alyeska OMS 135-2 located at milepost 406 of the Dalton Highway. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contamination poses an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Alyeska OMS 135-2 site which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions, regulatory decisions, and specific conditions required to effectively manage remaining contamination at this site.

Site Name and Location:
Alyeska OMS 135-2
Dalton Highway Milepost 406
Deadhorse, AK 99734

Name and Mailing Address of Contact Party:
Janine Boyette
Response and Remediation SME
Alyeska Pipeline Service Company
PO Box 196660, Mail Stop 507
Anchorage, AK 99519

ADEC Site Identifiers:
File No.: 330.38.029
Hazard ID: 1971

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background

During the summer of 1993, it was reported that an unknown buried 40-foot tanker trailer was partially unburied during gravel removal at the OMS 135-2 gravel pit located 12 miles south of Deadhorse within the Sagavanirktok River flood plain. The diesel tanker was said to be damaged and started to leak diesel fuel. Allegedly, no cleanup work was conducted and the tanker trailer was left in place and covered up with gravel. Petroleum contaminated gravel was encountered again during the Fall of 1993, evident by a 100 by 100 foot area of visual stained soil with a petroleum odor. It is unknown whether the stained soil was related to the alleged buried 40-foot tanker trailer.

Since the mid-1970s, the gravel pit was jointly utilized by the Department of Transportation (DOT) and Alyeska Pipeline Service Company (APSC) and administered by the Department of Natural Resources (DNR). Gravel uses include constructing the Dalton Highway and the Trans Alaska Pipeline System (TAPS). Currently, a major channel of the Sagavanirktok River 150 yards wide separates the Dalton access road terminus from the historic permitted 30 acre gravel area (See attached site photo). Gravel has not been mined from this area since the mid-1990s.

Contaminants of Concern

During the site investigation and cleanup activities at this site, samples were collected from soil and analyzed for Total Petroleum Hydrocarbons (TPH) (roughly equivalent to the summation of gasoline range organics (GRO), diesel range organics (DRO), and residual range organics (RRO)) and halogenated volatile organic compounds (VOCs). Based on these analyses, the following contaminant of concern was identified at the site:

- TPH

ADEC Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, *Arctic Zone* for the Ingestions and Inhalation pathway level listed in Table B2.

Table 1 - Arctic Zone Soil Cleanup Levels

Contaminants of Concern	Method Two, Ingestion	Method Two, Inhalation	Migration to Groundwater
GRO	1,400	1,400	N/A
DRO	12,500	12,500	N/A
RRO	13,700	22,000	N/A

Notes to Table 1:

1. All soil contaminant concentrations are presented as mg/kg.
2. Due to continuous permafrost in the Arctic Zone, the "Migration to Groundwater" pathway is considered incomplete or non-applicable (N/A).

Characterization and Cleanup Activities

During summer 1993, soil samples were collected from the alleged tanker car area. The soil samples, which were collected in plastic bottles and analyzed a year later, contained "hydrocarbons" (most likely TPH) up to 359 mg/kg. Soil samples were collected again in the fall of 1993 from a 100 by 100 foot area of visual stained soil encountered during gravel mining. A total of eight soil samples collected from the stained gravel contained TPH up to 2,250 mg/kg.

In 2019, an aerial inspection of the site was conducted by helicopter. The site gravel bar was surrounded by the Sagavanirktok River; no debris or soil staining/sheening were observed. During the ground survey, it was evident the surface soil had been scoured from high water levels. A magnetometer (metal detector) survey conducted revealed a yellow pin flag 6 inches below ground surface, but no other anomalies were noted. Soil field screened from 21 surface soil locations on the north side of the gravel bar, at the assumed area of the site and adjacent to the yellow pin flag, contained photo ionization detector (PID) readings from 0.0 parts per million (ppm) to 0.1 ppm.

Cumulative Risk Evaluation
Pursuant to 18 AAC 75.325(g) when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways. Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation
Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	No evidence of soil contamination was noted during aerial and ground surveys conducted in 2019
Sub-Surface Soil Contact	De-Minimis Exposure	Any remaining soil contamination is below ingestion/inhalation cleanup levels
Inhalation – Outdoor Air	De-Minimis Exposure	Any remaining soil contamination is below ingestion/inhalation cleanup levels
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no buildings on site or expected to be on site in the future.
Groundwater Ingestion	Pathway Incomplete	Supra-permafrost groundwater is not a potential drinking water source.
Surface Water Ingestion	De-Minimis Exposure	Remaining contaminant concentrations is assumed de minimis. Surface water is not a known drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	De-Minimis Exposure	Remaining petroleum contaminant concentrations is assumed de minimis.

Notes to Table 2: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision
No signs of the reported 1993 contamination were observed during the 2019 aerial and ground surveys. Due to the age of the spill over 26 years ago, and its location in the center of the Sagavanirktok River flood plain, potential remaining contamination could have eroded into the River. Thus, it is assumed any remaining contaminants are de minimis in volume. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following conditions.

Standard Conditions
1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows

contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with [18 AAC 75.325(i) or 18 AAC 78.600(h)]. A "site" [as defined by 18 AAC 75.990 (115) or 18 AAC 78.995(134)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site photo)

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 269-8685 or email at grant.lidren@alaska.gov.

Sincerely,

Grant Lidren
Project Manager

Electronic CC: Patty Burns, ADNR Division of Mining Land and Water patty.burns@alaska.gov
ADNR State Pipeline Coordinators Section (SPCS) DNR.PCO.Records@alaska.gov

Photo 1: The OMS 135-2 Site (outlined in red in the photograph above) is located within the flood plain on the Sagavanirktok River. The North Slope haul road, including the site access point, is shown on the right in the photograph.