THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1515.38.004

September 17, 2021

Ronald Leighton
Tribal President
Organized Village of Kasaan
P.O. Box 26-KXA
Ketchikan, AK 99950-0340

Re: Decision Document: Discovery Campus Kasaan
Cleanup Complete Determination

Dear Mr. Leighton:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program has completed a review of the environmental records associated with the Discovery Campus Kasaan site located on Block 4, Lots 6, 7, 8, and 9 in the vicinity of Main St. and 5th St. in Kasaan, AK. 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 information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Discovery Campus Kasaan site, which is located in the ADEC office in Juneau, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
Discovery Campus Kasaan
Block 4 Lots 6, 7, 8, and 9
Kasaan, AK 99919

Name and Mailing Address of Contact Party:
Ronald Leighton
Organized Village of Kasaan
P.O. Box 26-KXA
Ketchikan, AK 99950-0340

ADEC Site Identifiers:
File No.: 1515.38.001
Hazard ID.: 26864

Regulatory Authority for Determination:
18 Alaska Administrative Code (AAC) 75

Site Description and Background

The Discovery Campus Kasaan site is located in Kasaan, Alaska, which is located on Prince of Wales Island. Discovery Campus Kasaan consists of approximately one acre of land, Block 4 Lots 6, 7, 8, and 9, and is owned by the Organized Village of Kasaan (OVK). Four buildings and structures are on the premises, including a café, two rental cabins, and a carving shed. Prior to OVK purchasing the property in 2011, a residential structure and a heating oil aboveground storage tank (AST) of assumed 150-gallon capacity were removed from the property. When the tank was removed, stained surface soil was discovered beneath the former AST. To keep people and animals from coming into contact with the soil, the area was capped with gravel.

In 2019, assessment activities identified two areas of concern (AOC): (1) the AST AOC near the former residence and (2) the Beach AOC, which was located down-gradient of the AST AOC. In April and May 2019, ADEC assessment activities were conducted to quantify the degree and extent of contamination (soil and groundwater) and to assess potential exposure concerns based on current and future site use. During excavation activities in 2019, various kinds of non-hazardous buried debris, including woody debris and glass bottles, were located in the down-gradient location (i.e., the Beach AOC). Local knowledge indicated the area was an unregulated dumping site.

Contaminants of Concern

ADEC conducted assessment activities in 2019 that involved soil and groundwater sample collection at the Discovery Campus Kasaan site. Petroleum-contaminated soil was found at both the AST and Beach AOCs. Petroleum-contaminated groundwater was also found at the AST AOC.

During the site characterization and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for the presence of the following potential contaminants of concern (COCs): gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs). Surface water was not encountered at this site. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered COCs at this site:

- DRO (soil), both AOCs
- VOCs, specifically naphthalene (soil and groundwater) and 1,2,4-trimethylbenzene (soil), AST AOC only

Cleanup Levels

In accordance with 18 AAC 75.340(e)(1), site-specific alternative cleanup levels (ACLs) for DRO, naphthalene and 1,2,4-trimethylbenzene were approved for this site. Total organic carbon (TOC) samples were collected at the site in order to establish site-specific cleanup levels for the migration to groundwater exposure pathway using the ADEC Method 3 calculator. Groundwater cleanup levels approved for this site were those in 18 AAC 75.345, Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/mL)
DRO	3,800	N/A
naphthalene	0.57	1.7
1,2,4-trimethylbenzene	7.7	N/A

mg/kg = milligrams per kilogram
µg/mL= micrograms per Liter

Characterization and Cleanup Activities

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began in 2019. These activities were conducted by ADEC's Brownfields Program, from which OVK had applied for and been awarded assessment and cleanup services in 2018 and 2020, respectively. These activities are described below.

Site characterization conducted in 2019 involved soil and groundwater sample collection at the former residential area, as well as at a down-gradient location near the beach where buried woody debris and glass bottles were found. Eleven test pits were advanced and analytical samples were collected to determine the nature and extent of the petroleum contamination from both AOCs. In addition, three temporary monitoring wells (two in the area of the AST and one near the Beach AOC) were installed, developed, and sampled to characterize the condition of the groundwater. Laboratory analysis of the soil samples showed DRO concentrations above ADEC cleanup levels in samples taken from three test pits in both locations (i.e., the former residential area and the down-gradient area). Naphthalene and 1, 2, 4-trimethylbenzene were also found to be above ADEC cleanup levels in soil samples taken near the location of the former AST. Groundwater analytical results revealed naphthalene concentrations above the ADEC groundwater cleanup levels in the AST AOC as well.

Cleanup activities were conducted in November 2020 and January 2021. Contaminated soil at the Beach AOC was excavated based on the analytical results from the 2019 characterization efforts. The excavation area was extended to bedrock refusal at approximately seven feet below ground surface (bgs). Confirmation samples were collected from the sidewalls and a composite sample was taken from the stockpile. Analytical results showed detections of DRO, naphthalene, and 1,2,4-trimethylbenzene; however, all concentrations were below the default cleanup levels found in in Tables B1 and B2 of 18 AAC 75.341.

The source of the contamination in the area of the former residence is believed to be from the historic heating oil AST (the AST AOC). Potholes were dug throughout the area at various depths to delineate the depth and extent of contaminated soil in the area. The extent of the contaminated soil was greater than estimated previously due to the limited number of samples collected during the initial characterization. This increased volume of contaminated soil extended the field work effort and also required an additional mobilization to complete the removal. The AST area was excavated to bedrock, which was variable in depth and found between 5 and 8 feet bgs. Confirmation samples were collected from the sidewalls and floor of the excavation area. Samples from the AST area were analyzed for DRO and VOCs, specifically naphthalene and 1,2,4-trimethylbenzene. All contaminants detected were at concentrations below the default cleanup levels found in Tables B1 and B2 of 18 AAC 75.341, with the

exception of one sample taken from the west sidewall of the former AST area (which found DRO at 411 mg/kg) and three samples taken from base of the excavated area for naphthalene (which were between 0.042 and 0.215 mg/kg).

TOC samples were collected on-site to develop ACLs. TOC sample locations were comparable to the rest of the site in terms of soil type and depth and, thus, the results are representative of the contaminated area and appropriate for use in the calculation of ACLs.

Table 2 – Contaminants of Concern Comparison to Cleanup Levels

Contaminant	Maximum Concentration Found in AST Area (mg/kg)	Maximum Concentration Found in Beach Area (mg/kg)	Alternative Cleanup Level (mg/kg)
DRO	411	112	3800
Naphthalene	0.215	0.032U	0.57
1,2,4-trimethylbenzene	0.307	0.064U	7.7

U = Indicates the analyte was analyzed for, but was not detected

Following the excavation of soil, one monitoring well was installed within the AST AOC where PID readings were the highest and in the general area where contaminated groundwater was identified during previous characterization efforts.

A primary and duplicate groundwater sample pair were collected in November 2020 and the analytical results showed naphthalene concentrations of 8.58 and 10.2 micrograms per Liter (µg/L), which were above the ADEC groundwater cleanup levels for listed in Table C of 18 AAC 75.345 (1.7 µg/L). Other VOCs were detected, but were well below their respective ADEC cleanup levels. A second sampling event occurred in February 2021; analytical results for another primary and duplicate groundwater sample pair were non-detect for naphthalene.

In total, 257 supersacks containing 369.89 tons of contaminated soil, were filled and shipped offsite to Waste Management's Columbia Ridge Landfill in Arlington, Oregon. A final mobilization occurred in April 2021 to decommission the monitoring well.

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	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below ingestion cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Residual contaminant concentrations meet the cleanup levels and are not expected to affect indoor air.
Groundwater Ingestion	Pathway Incomplete	Contamination not detected in groundwater.
Surface Water Ingestion	Pathway Incomplete	Surface water was not affected by the contamination.
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	Pathway Incomplete	Contamination is not expected to affect ecological receptors.

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

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard 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 the 18 AAC 75.341, Tables B1 and B2 method two soil cleanup levels or groundwater cleanup levels listed in 18 AAC 75.345, Table C requires ADEC approval in accordance with 18 AAC 75.325(i). A "site" as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas

contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

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 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, 610 University Avenue, Fairbanks, Alaska 99701, within 20 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, 555 Cordova Street, Anchorage, Alaska, 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) 465-5206, or email at marc.thomas@alaska.gov.

Sincerely,

Marc Thomas

Marc Thomas
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit
Marina Anderson, OVK
Alyssa Fischer, OVK
Eric Hamar, OVK
Sara Perman, ADEC