



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: 2542.38.013

November 3, 2023

Rena Flint
USACE, Alaska District
PO Box 6898
JBER, AK 99506-0809

Re: Decision Document: Dutch Hbr-Humpy Cove Latrine 3 UST
Cleanup Complete Determination

Dear Ms. Flint,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Dutch Hbr-Humpy Cove Latrine 3 UST, located on Summer Bay Road in Unalaska, Alaska. 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 Dutch Hbr- Humpy Cove Latrine 3 UST, which is located in the DEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

Dutch Hbr- Humpy Cove Latrine 3 UST
Summer Bay Road Mile 8
Unalaska, AK, 99685

Name and Mailing Address of Contact Party:

Rena Flint
USACE, Alaska District
PO Box 6898
JBER, AK 99506-0809

DEC Site Identifiers:

File No.: 2542.38.013
Hazard ID.: 3068

Regulatory Authority for Determination:

18 AAC 78 and 18 AAC 75

Site Description and Background

The Humpy Cove Latrine 3 UST was associated with the remnants of a former latrine located on mile 8 of Summer Bay Road in Unalaska, Alaska. During a Remedial Investigation (RI) and interim removal actions (IRA) in 1997, the single-walled steel 300-gallon UST with heavy corrosion was located and removed. The excavation limits extended to a depth of nine feet below ground surface (bgs) and covered

approximately 240 square feet. Four soil samples were taken at the project area and indicated remaining diesel range organics (DRO) concentrations exceeded DEC Method Two Cleanup Levels ranging from 1,100 milligrams per kilogram (mg/kg) to 3,800 mg/kg.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and analyzed for DRO, residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, the following contaminant was detected above the default DEC cleanup levels and is considered a Contaminant of Concern at this site:

- DRO

Cleanup Levels

The applicable cleanup levels at the site are the calculated method three site-specific alternative cleanup level (ACL) under 18 AAC 75.340 (e). A site-specific organic carbon content of soil (foc) value of 0.06 grams per gram (g/g) was used in the Petroleum Cleanup Level Calculator, as opposed to the default Method Two foc value of 0.001 g/g.

Table 1 – Approved Cleanup Levels

Contaminant	Soil ¹ (mg/kg)
DRO	8,300

¹ Alternative Cleanup Level based on approved site-specific soil data and the equations set out in the department's *Procedures for Calculating Cleanup Levels*, dated February 1, 2018. The most stringent ACL value for DRO is the Human Health Ingestion Cleanup Level.

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

In the mid 1990's, the Formerly Used Defense Sites (FUDS) program conducted site inspections in Unalaska to find and dispose of remaining debris, USTs, and other potential contaminant sources. During the 1997 IRA, the empty single-walled steel 300-gallon UST with heavy corrosion was located and removed. No dispensers or piping associated with this UST were encountered. During excavation, approximately 30 cubic yards of presumed clean overburden were placed to the side of the excavation for use as backfill, and 35 cubic yards of soil was transported offsite for treatment. The final excavation was 240 square feet in area and nine feet deep. Groundwater was not encountered.

Four soil samples were collected at the Humpy Cove Latrine 3 UST site: two from the excavation and two from the segregated, presumed clean stockpiled soil. The excavation samples were collected from the base at a depth of nine feet bgs. All samples were submitted for DRO, RRO, and BTEX analyses. One sample collected from the bottom eastern portion of the excavation was also submitted for PAH SIM analyses. DRO was detected in both excavation samples at concentrations of 1,100 mg/kg and 3,400 mg/kg, and in both stockpile samples at concentrations of 3,700 mg/kg and 3,800 mg/kg. RRO was detected below cleanup levels at a maximum concentration of 300 mg/kg. Five PAHs were detected below cleanup levels: 2-methylnaphthalene, acenaphthene, naphthalene, phenanthrene, and anthracene. Cumulative risk of these PAHs were below the DEC risk threshold.

Backfilling activities at the Mess Hall began in July 1998, after the sampling effort was completed. Backfill consisted of thermally treated soils and the 30 cubic yard stockpiled soils which were thought to be non-impacted. However, analytical results showed that the presumed clean stockpiled soil contained DRO concentrations above DEC Method Two Soil Cleanup Level criteria.

In August 2000 during a follow up Islandwide SI and IRA, two soil borings were drilled at the former Latrine 3 location. The first soil boring met refusal at nine feet bgs and the boring did not detect any soil contamination based on photoionization detection (PID) screenings. Although groundwater was not encountered, the monitoring well was established and rechecked for groundwater in September, which was also dry. The well was abandoned and a second boring advanced, which met refusal at 8 feet bgs. This boring also did not detect soil contamination and was dry, therefore no groundwater samples were collected. The soil sample collected from the excavation footprint at five to seven feet bgs was analyzed for DRO, RRO, and PAHs. DRO was the only detection at 2.93 mg/kg. The site layout and sampling locations from the 1998 and 2000 sampling events are shown in Figure 1.

In 2009, due to the contaminated backfill being used at the site and historical DRO concentrations remaining above default soil cleanup levels, site-specific total organic carbon (toc) data was collected from the Humpy Cove area to calculate a Method Three Alternative Cleanup Level. The revised fraction of organic carbon (foc) value of 0.06 g/g was used to calculate an alternative cleanup level of 8,300 mg/kg, which is the alternative Ingestion cleanup level. Remaining soil contaminant concentrations at the site are below this Method Three Cleanup Level, therefore the site was recommended for no further action. The Method Three Alternative Cleanup Level calculations are shown in Figure 2.

Cumulative Risk Evaluation

Pursuant to 18 AAC 78.600(d), 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, DEC 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 DEC'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	Contamination may be present in surface soil but is below the ingestion and inhalation cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remains in the sub-surface (>2 ft bgs) but is below the ingestion cleanup level.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination in soil is present at very low levels, well below the inhalation cleanup level.

Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contaminants in soil are present, but are not volatile enough to cause a future vapor intrusion risk. There are no occupied buildings at the site.
Groundwater Ingestion	De Minimis Exposure	Contaminants in soil are below the site-specific calculated migration to groundwater cleanup levels. Site is underlaid by bedrock and groundwater was not present at the site. Groundwater in the vicinity of the site is not currently used as a drinking water source.
Surface Water Ingestion	De Minimis Exposure	Contaminants in soil are below the site-specific Method Three Migration to Groundwater cleanup levels for the site and contamination is not expected to migrate to surface water. Small drainages and ponds are located 300 to 400 feet from 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	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.

Notes to Table 2: “De Minimis Exposure” means that in DEC’s judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in DEC’s judgment contamination has no potential to contact receptors.

DEC Decision

Soil 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 method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 78.600(h). A “site” [as defined by 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 figure.)
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 78.276(f) and does not preclude DEC 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.

Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page <https://dec.alaska.gov/commish/review-guidance/> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

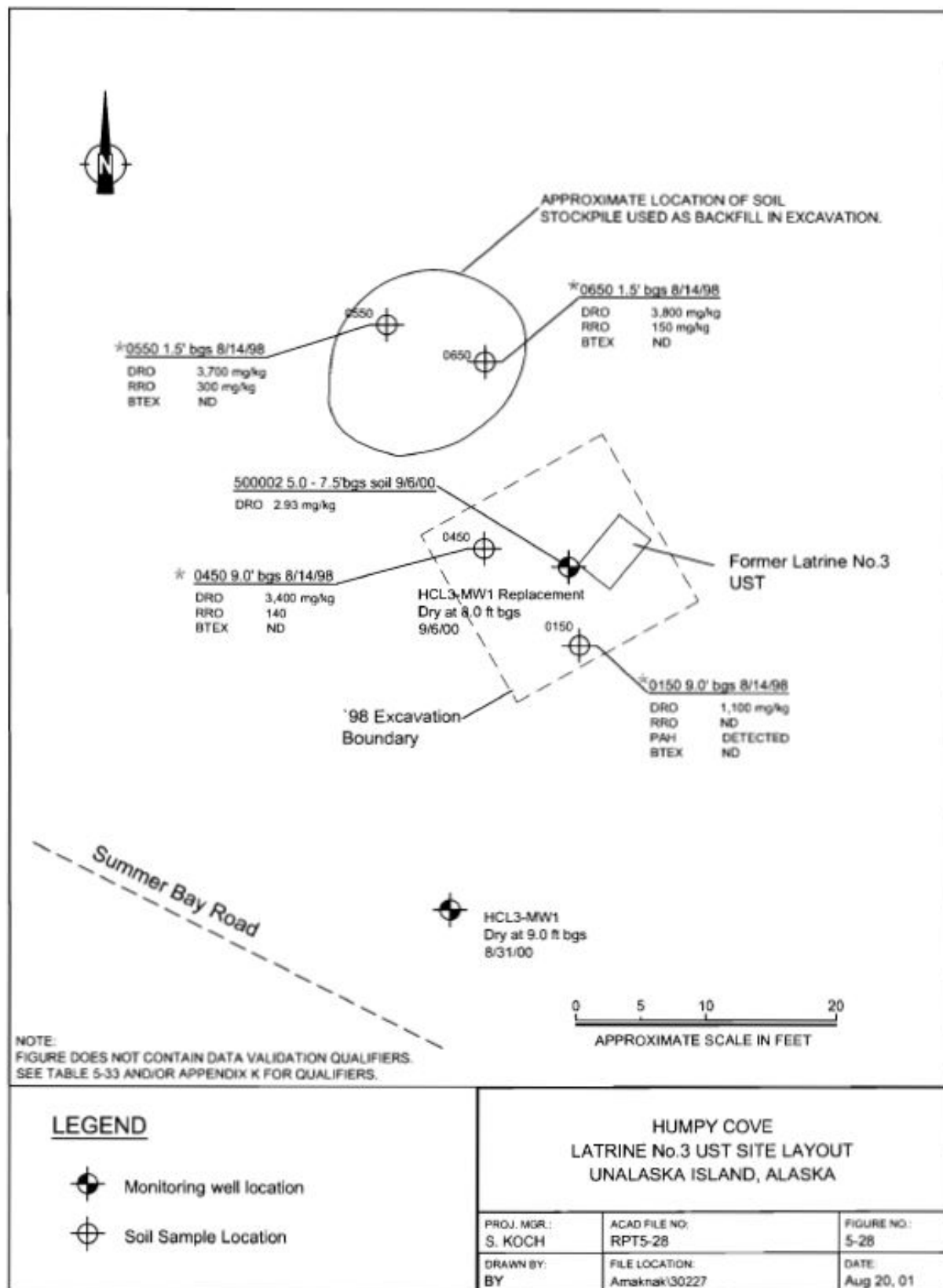
If you have questions about this closure decision, please feel free to contact me at (907) 451-2181, or email at cascade.galasso-irish@alaska.gov.

Sincerely,



Cas Galasso
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit



5-107

Figure 1 -Site figure of sampling locations and results from the 1998 and 2000 Interim Removal Actions and sampling

Division of Spill Prevention and Response

Contaminated Sites Program

State of Alaska > DEC > SPAR > Contaminated Sites Program > Method Three & Cumulative Risk Calculator > Step Four

Method Three & Cumulative Risk Calculator

Site Name: **Humpty Cove Latrine No. 3**

(For viewing on printout.)

Site zone and exposure scenario: Over 40-inch Zone - Residential Exposures

Cleanup Level Calculations

8/12/2009

Chemical	CAS	Type	Calculations
DRO (Total)		Organic Non-Carcinogenic Petroleum	Ingestion Cleanup Level: 8300 mg/kg
			Inhalation Cleanup Level: 114000 mg/kg
			Groundwater Cleanup Level: 1.5 mg/L
			Migration to Groundwater: 13000 mg/kg

Please Note

Chemical	Notes
DRO (Total)	The Maximum Allowable DRO concentration is 12500 mg/kg

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The parameters used to calculate the above cleanup levels and the parameters' default values are as follows:

Volatilization Pathway Parameters

Symbol	Description	Value	Default	Units
ρ_b	Dry soil bulk density	1.5	1.5	g/cm ³
n	Total soil porosity	0.434	0.434	$L_{\text{pore}}/L_{\text{soil}}$
Θ_w	Water-filled soil porosity	0.15	0.15	$L_{\text{water}}/L_{\text{soil}}$
Θ_a	Air-filled soil porosity	0.284	0.284	$L_{\text{air}}/L_{\text{soil}}$
w	Average soil moisture content	0.1	0.1	$g_{\text{water}}/g_{\text{soil}}$
f_{oc}	Organic carbon content of soil	0.08	0.001	g/g

Groundwater Pathway Parameters