



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Environmental
Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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File No: 1513.38.081

August 29, 2013

Ms. Joylynn McGee
P.O. Box 211341
Auke Bay, Alaska 99821

Re: Decision Document: Residence – 13780 Glacier Highway HHOT
Cleanup Complete Determination

Dear Ms. McGee:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the Contaminated Site record for your Residence – 13780 Glacier Highway HHOT, concerning the assessment and cleanup of a release from a fitting on a newly installed aboveground storage tank located on your property (Figure 1).



Figure 1. The black square displays the fitting from where the petroleum discharged.

The ADEC has reviewed the environmental records for the referenced site. This decision letter memorializes the site history, cleanup actions, and standard conditions for long-term site management. No further remedial action is required.

Site Name and Location:

Residence – 13780 Glacier Highway HHOT
13780 Glacier Highway
P.O. Box 211341
Auke Bay, Alaska 99821

Name and Mailing Address of Contact Party:

Ms. Joylynn McGee
13780 Glacier Highway
P.O. Box 211341
Auke Bay, Alaska 99821

DEC Site Identifiers:

DEC Reckey: 14948760
File No: 1513.38.081
Hazard ID: 25272

Regulatory Authority for Determination:

Chapter 18 Alaska Administrative Codes 75

Site Description and Background

On January 25, 2003 an aboveground storage tank (AST) home fuel release occurred at the residence. The Prevention and Emergency Response Program (PERP) staff investigated the site and found fuel discharged from a fitting on a newly installed tank and pump system used to feed a monitor stove on the second floor of the residence. About 30 gallons of fuel flowed down slope penetrating the surface soil, with some fuel eventually making its way into the marine waters of Auke Nu Cove via a corrugated metal culvert under the driveway.

Contaminants of Concern

The following petroleum contaminants of concern, those above approved cleanup levels, were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Diesel Range Organics (DRO)

Cleanup Levels

Diesel range organics are the contaminant of concern for this site. Results from soil samples taken in 2003 (Table 2) were detected above the ADEC migration to groundwater cleanup levels established in 18 AAC 75.341 (d), Method Two, Table B2, over 40-inch Zone Migration to Groundwater Ingestion pathways.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (mg/L)	Surface Water (ug/L)
DRO	10,250	230	1.5

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

ug/L = micrograms per liter

Characterization and Cleanup Activities

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began on March 3, 2003 when environmental contractor Smith Bayliss LeResche Inc. (SBL) collected eight field screening samples to characterize the extent of the contaminated area (Figure 2). The five highest samples were analyzed for DRO. Analytical results for DRO are presented in Table 2, indicating four of the five samples had DRO concentrations above DEC's most stringent soil cleanup levels, per 18 AAC 75.341 Table B2. In 2003 SBL mentioned that an estimated 40-50 cubic yards of contaminated soil remained on the site. While none of the contaminated soil was removed from the site, SBL installed a French drain system in three drainage locations which provided oxidation to enhance bioremediation.

Table 2 – 2003 Analytical Sample Results

Sample ID	Depth (inch)	DRO (mg/kg)
1 J.L	18	2,800
2 J.L	18	71
3/5 J.L	18	310
4/6 J.L	18	3,300
5/7 J.L	18	390

Sample results in **boldface** exceed DEC 18 AAC 75.341 Table B2 applicable cleanup levels for this project.

Groundwater was not encountered and no groundwater samples were collected.

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program continued on May 3, 2007 as contractor NORTECH investigated the site using a hot water sheen test to field screen five soil borings. Soil boring samples near the AST revealed no sheen; however, down slope samples had a light smell of diesel and showed a moderate level of petroleum. Only one soil sample was collected in 2007 with a concentration of 16.7 mg/kg (parts per million), which is below ADEC cleanup concentration for DRO of 230 parts per million.

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 do not pose a cumulative human health risk.

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 3.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contaminant concentrations in 2003 were below the direct contact cleanup level and have likely attenuated further over time and with the nitrogen amendment addition to the soil.
Sub-Surface Soil Contact	Pathway Incomplete	Site investigation found no soil contaminated below two feet. If there is residual contamination in the sub-surface soil it is expected to be of a de-minimis extent.
Inhalation – Outdoor Air	Pathway Incomplete	Residual DRO contamination is expected to be of de-minimis extent and volatile compounds (BTEX) were not detected in sub-surface samples.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are buildings present at the site; however, any remaining contamination is below DRO inhalation cleanup levels.
Groundwater Ingestion	Pathway Incomplete	Groundwater was not encountered during the investigations. The Juneau city water system serves the property.
Surface Water Ingestion	Pathway Incomplete	There is no fresh water located within ¼ mile of the site; however, the property is near the marine waters of Auke Nu Cove. Juneau city water system serves the property.
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	The residual soil contamination is de-minimis and is not migrating to the nearby marine waters. No sheen has been noticed in the marine waters since 2003 when the incident occurred. No stressed vegetation has been observed on the property.

Notes to Table 3: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be 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 administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

8/29/2013

ADEC Decision

ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be designated as Cleanup Complete on the contaminated sites database. This decision is based on the following:

1. Contaminant concentrations remaining in the soil since 2003 have likely attenuated further with time and the addition of fertilizer; and:
2. Contaminants are unlikely to migrate to nearby marine waters due to the low concentrations and the remaining volume, and:
3. All potential exposure pathways are De-Minimus or Pathway Incomplete.

Standard Conditions

Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325(i). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful. Contaminated soil, if excavated and placed elsewhere on your property, should be kept away from any streams or small surface drainages (if present).

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

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 this site may pose an unacceptable risk to human health or 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, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, 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, Juneau, Alaska 99801, 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) 465-5390.

Sincerely,


for Erik Norberg
Project Manager

cc: Jason Ginter, NORTECH

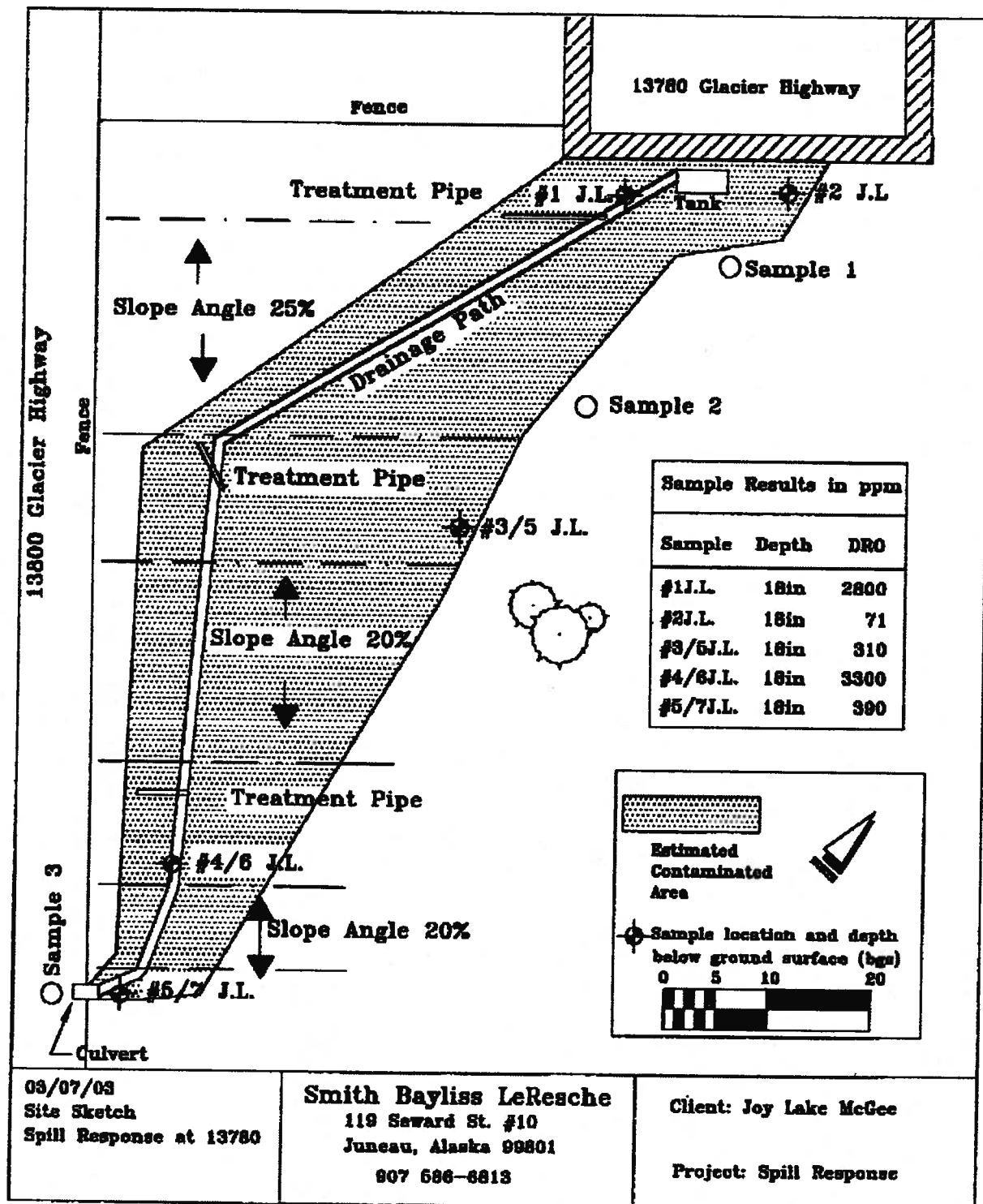


Figure 2 – Site map of 13780 Glacier Highway.