STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

SEAN PARNELL, GOVERNOR

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File: 330.38.073

Certified Return Receipt
Article No: 7008 1830 0002 6349 4081

February 17, 2010

Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507 PO Box 196660
Anchorage, AK 99519-6660

Re: Record of Decision (ROD); Alyeska PS 12 Mainline Sump
Cleanup Complete Determination-Institutional Controls

Dear Mr. Shifflet:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Alyeska PS 12 Mainline Sump located at Mile 64.7 Richardson 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 as long as the site is in compliance with established institutional controls.

This decision is based on the administrative record for the Alyeska PS 12 Mainline Sump site which is located in the offices of the ADEC in Anchorage, Alaska. This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete with ICs determination.

Introduction

Site Name and Location:
Alyeska PS 12 Mainline Sump
Mile 64.7 Richardson Highway
Near Copper Center, Alaska 99573

Name and Mailing Address of Contact Party:
Jan Shifflet
Alyeska Pipeline Service Company
Mail Stop 507
PO Box 196660
Anchorage, AK 99519-6660

Database Record Key and File Number:
File: 330.38.073
Hazard ID: 1732

Regulatory authority under which the site is being cleaned up:
18 AAC 75

Background
During 1996 excavation activities related to the removal of the mainline turbine (MLT) sump, located outside of the Main Pump Enclosure at PS12, Alyeska personnel encountered petroleum-impacted soils. The source was suspected to be a leak associated with a loose vent flange on the west-end of the MLT sump. The MLT sump may have periodically contained turbine fuel discharged from the MLT during startup and shutdown of the unit and/or from a "blowdown" tank. The release was reported as 30 gallons of turbine fuel.

Contaminants of Concern
During the investigations at this site, soil samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO); and benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Gasoline Range Organics (GRO)
- Diesel Range Organics (DRO)

Cleanup Levels
The default soil cleanup levels for this site are established in 18 AAC 75.341 Tables B1 and B2, Under 40 inch Zone, Migration to Groundwater.

Contaminant	Site Cleanup Level (mg/kg)
GRO	300
DRO	250

Site Characterization and Cleanup Actions
Approximately 50 cubic yards of contaminated soil were removed in 1996. The excavation measured 26 feet long, 14 feet wide and 11 feet deep. Groundwater was not encountered in the excavation. Confirmation samples contained concentrations up to 2,000 mg/kg GRO and 16,000 mg/kg DRO.

In 1997, two soil borings were advanced in the area of the most highly contaminated soil remaining. These borings were advanced to 27 and 32.8 feet. Observations indicated that groundwater and soil at the groundwater interface appeared to be free of contamination. Only one sample collected, at 12 feet bgs, contained detectable hydrocarbons with concentrations of 6,500 mg/kg DRO and 880 mg/kg GRO. Impacted soil was not encountered below 15 feet bgs, the depth of a low permeability silt layer.

Pathway Evaluation

The exposure pathways for human health that were evaluated include the following: ingestion of soil and groundwater, indoor and outdoor inhalation of vapors, and direct contact with soil. Exposure pathways are the conduits by which contamination may reach human or ecological receptors. Potential exposure pathways, presented in Table 1, were evaluated using ADEC's Exposure Tracking Model (ETM).

All potential exposure pathways are either de minimis, incomplete, or controlled. "De minimis exposure" means that in ADEC's judgment humans or wildlife will be minimally affected by the small volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact humans or wildlife. "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.

GRO and DRO concentrations remaining in the soil may be above cleanup levels for ingestion, direct contact and inhalation pathways, and migration to groundwater. However the exposure risk for these pathways is considered acceptable, primarily because the amount of contaminated soil was determined to be de minimis in extent. The groundwater ingestion exposure pathway is further protected by the use of a much deeper aquifer at PS 12 below silt and clay confining layers.

The exposure pathway analysis above was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

Table 1 – Exposure Tracking Model Results

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Excavation removed surface contamination more than 10 years ago. Release was due to a leak from an underground sump.
Sub-Surface Soil Contact	De minimis exposure	Excavation has removed the majority of the contamination, but some was left in place in order to protect the integrity of adjacent buildings and utilities.
Inhalation – Outdoor Air	De minimis exposure	Constituents of concern remaining are the petroleum range compounds not to be included in risk calculation for outdoor air. Risk is limited also by few available receptors, i.e. occasional site visitors.
Inhalation – Indoor Air (vapor intrusion)	De minimis exposure	Petroleum range compounds are the remaining constituents of concern - at this time ADEC does not require evaluation of these compounds for this

		pathway. Risk is limited also by few available receptors, i.e. occasional site visitors.
Groundwater Ingestion	De minimis exposure	Although no groundwater samples were collected, observations made during investigations did not show evidence of groundwater contamination based on odor and soil sample results collected from below first groundwater level (contamination did not extend below 15 ft bgs). Groundwater wells at the site installed to intercept groundwater at much greater depths than the confining layers of silt or clay above. Potential receptors limited to visitors and construction workers.
Surface Water Ingestion	Pathway Incomplete	Distance to nearest surface water body approximately ¼ mile, no evidence of offsite migration, size and age of spill.
Wild Foods Ingestion	Pathway Incomplete	Site is a gravel pad in a fenced, secure area.
Exposure to Ecological Receptors	Pathway Incomplete	Site is a gravel pad in a fenced, secure area. No evidence of offsite migration.

ADEC Decision

There is contamination remaining above established cleanup levels at the Alyeska PS 12 Mainline Sump but ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete- ICs determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore the Alyeska Pipeline Services Company shall report to ADEC every five years to document land use, or report as soon as Alyeska Pipeline Services Company becomes aware of any change in land ownership and/or use, if earlier. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov.**

2. Any proposal to transport soil or groundwater off site 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. (See attached site figure.)

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

4. Soil contamination is located in the area of the MLT sump (see attachment B). When the soil in this area becomes accessible and the utilities in this area are no longer necessary, the soil must be evaluated and contamination addressed in accordance with an ADEC approved work plan.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. When the site meets the requirements for a Cleanup Complete determination, then the Institutional Controls will be terminated.

This determination is in accordance with 18 AAC 75.380(d) 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.

Please sign and return *Attachment A* to ADEC <u>within 30 days of receipt of this letter</u>. If you have questions about this closure decision, please contact the ADEC project manager, Keather McLoone at (907) 269-7526.

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By,

Keather McLoone
Environmental Specialist

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Attachment B: Site Figure.

Cc: Scott Rose, SLR
Jerry Brossia, JPO
Gary Reimer, Anchorage District Manager, BLM

*Attachment A: Cleanup Complete-ICs Agreement and Signature Page**

Alyeska Pipeline Service Company agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this Closure Decision Document dated **February 17, 2010**. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

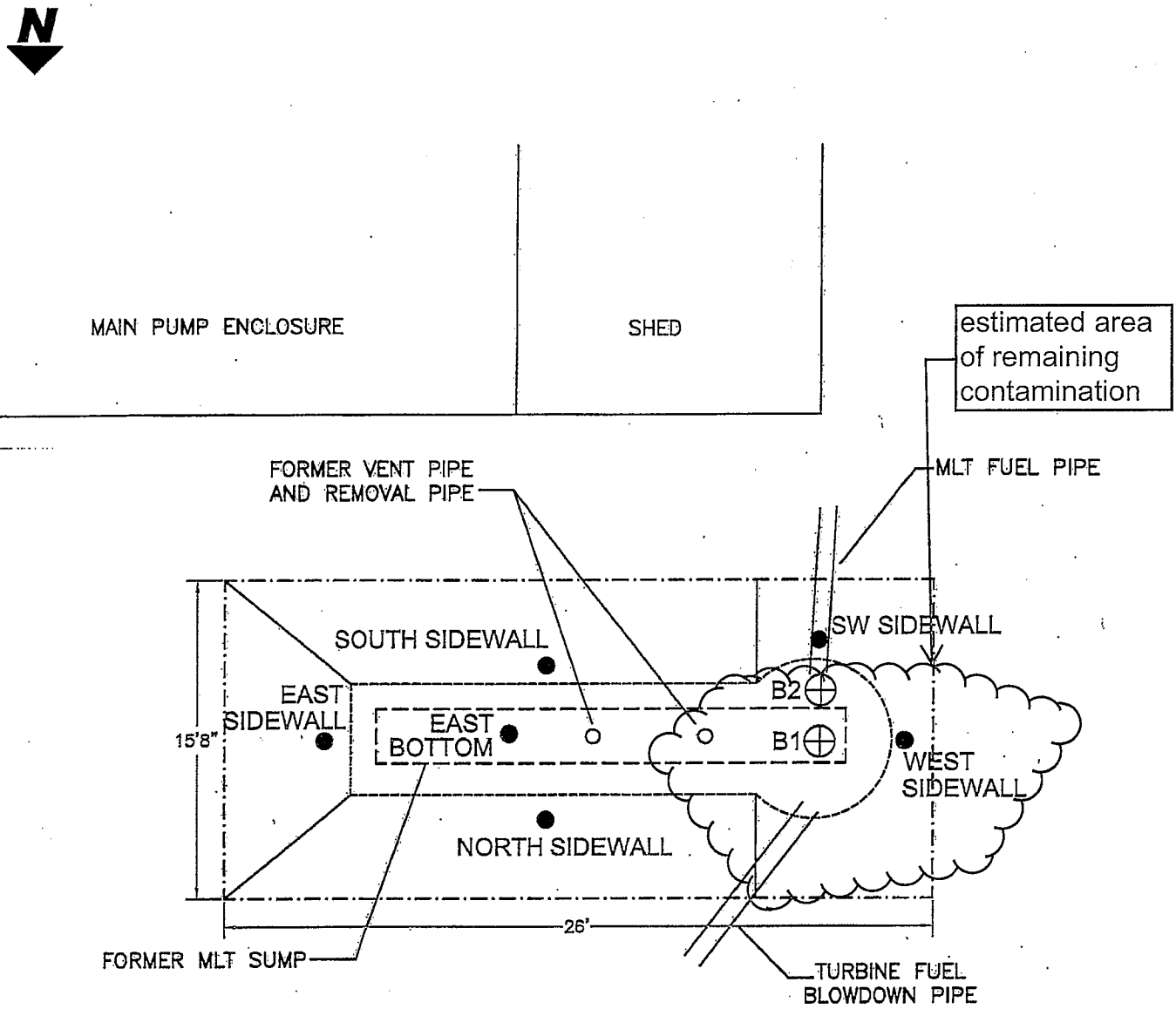
_____
Signature of Authorized Representative, Title
Jan Shifflet/ Alyeska Pipeline Service Company

_____
Printed Name of Authorized Representative, Title
Jan Shifflet/ Alyeska Pipeline Service Company

For Internal Use Only
ADEC File No.: 330.38.073
Hazard ID: 1732
ADEC Project Manager: Keather McLoone

***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan *and* Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager so that the PM can update the CS database.



LEGEND

⊕ 1997 BORING LOCATION

● 1996 EXCAVATION CONFIRMATION SAMPLE

NOTES

SOIL BORINGS ADVANCED INSIDE CORRUGATED METAL PIPES

ALYESKA PIPELINE SERVICE COMPANY
P.O. BOX 196660
900 E. BENSON BLVD.
ANCHORAGE, ALASKA 99515-6660

Report PUMP STATION 12 MAINLINE TURBINE SUMP CONCEPTUAL SITE MODEL