



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

**Department of  
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE  
Contaminated Sites Program

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File No: 150.38.043

April 18, 2016

Lynden Transport  
Attn: Mr. Richard Hennagin  
3027 Rampart Drive  
Anchorage, AK 99501

Re: Decision Document, Lynden Transport Vehicle Accident - MP 169 Parks Highway  
Cleanup Complete Determination

Dear Mr. Hennagin:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the Lynden Transport Vehicle Accident- Mile Post (MP) 169 Parks Highway contaminated site south of Cantwell, Alaska. 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:**

Lynden Transport Vehicle Accident  
MP 169 Parks Highway  
Cantwell, AK 99729

**Name and Mailing Address of Contact Party:**

Lynden Transport  
3027 Rampart Drive  
Anchorage, AK 99502

**DEC Site Identifiers:**

File No: 150.38.043  
Hazard ID: 26367

**Regulatory Authority for Determination:**

18 AAC 75

**Site Description and Background**

In August 2014 a semi-truck and trailer, were involved in an accident which resulted in the release of approximately 200-gallons of diesel fuel onto the shoulder of the north-bound lane of Mile Post 169 of the Parks Highway. Fuel was observed to have migrated about 600 feet down a roadside drainage into adjacent wetlands. The spill area was within the Alaska Rail Road Corporation (ARRC) Right-of-Way (ROW) and affected infrastructure owned by the Alaska Department of Transportation & Public Facilities (ADOT&PF).

**Contaminants of Concern**

During the course of the investigation and cleanup, summarized below in the Characterization and Cleanup Activities section of this decision letter, soil and groundwater samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), polynuclear aromatic

hydrocarbons (PAH), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Based on these analyses, the following contaminant of concern was identified:

- DRO

### Cleanup Levels

The approved cleanup level for DRO in soil is the Method 2, under 40-inch precipitation zone migration to groundwater level established in 18 AAC 75.341(c), Table B2.

**Table 1 – Approved Cleanup Levels**

<b>Contaminant</b>	<b>Soil- Migration to Groundwater (mg/kg)</b>
DRO	250

mg/kg = milligrams per kilogram

### Characterization and Cleanup Activities

In August 2014 on the same day of the incident, an emergency response contractor and ADEC responded to the spill. Water was vacuumed from the drainage ditch and sorbent pads and boom were placed in the spill area. Field-screening indicated the spill had directly impacted an area of approximately 500 square feet. In October 2014, more impacted water was vacuumed from the drainage ditch. After coordination with ADOT&PF, ARRC, and the United States Army Corps of Engineers (USACE), excavation proceeded and 102 tons of diesel impacted soil were removed from the site and thermally treated at Alaska Soil Recycling (ASR).

Field-screening and laboratory samples indicated the excavation adequately removed contaminated soil to concentrations below migration to groundwater cleanup levels except where railroad infrastructure restricted soil removal. Confirmation soil samples collected at three locations following excavation activities near the original spill location exceeded cleanup levels for DRO. Two of those samples, with DRO up to 1,100 mg/kg, were collected next to ARRC infrastructure that could not be removed. These two locations were isolated and surrounded by soil that was determined to have concentrations below cleanup levels. A third sample with a concentration of DRO at 1,750 mg/kg, was collected from the bottom of the excavation in the railroad bed. This excavation was halted to protect the structural stability of the railroad bed.

In order to further evaluate the remaining contamination at the site ADEC calculated the 95<sup>th</sup> percent upper confidence limit (UCL) of the Mean for DRO samples as outlined in 18 AAC 75.380(c)(1) using confirmation sample data collected after excavation was complete. Statistical analysis was performed using the U.S. Environmental Protection Agency's (EPA) ProUCL software, and resulted in a 95<sup>th</sup> percent upper confidence level of 238.2 mg/kg, which is below the migration to groundwater cleanup standard of 250 mg/kg for the Under 40-Inch Zone.

In early May 2015, during spring break-up, the consultant conducted the first of three site inspections to look for surface water impacts. Two weeks later, after more snow had melted, the consultant conducted a second inspection. No impacts (such as sheen or emulsified product) were

observed to surface water in the drainage ditch or adjacent wetlands. A third inspection was conducted before freeze-up and again no impacts were observed.

**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 non-carcinogenic 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 pose a cumulative human health risk if people are exposed to contaminated soil at the spill site through the direct contact and inhalation pathways. However because the remaining impacted soil is inaccessible and located beneath both ARRC and ADOT&PF infrastructure, humans are unlikely to come into contact with contamination at the site, and the ADEC has determined that the contamination is De-Minimis.

**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 either De-Minimis Exposure 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	The site is the shoulder of a road and receptors are only infrequently present. Contaminant concentrations do not exceed direct contact cleanup levels
Sub-Surface Soil Contact	De-Minimis Exposure	The site is the shoulder of a road, contaminant concentrations do not exceed direct contact cleanup levels and receptors are only infrequently present.
Inhalation – Outdoor Air	De-Minimis Exposure	Volatile contaminants are not present above the inhalation cleanup level and receptors are only infrequently present at the site.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	The site is a roadway and no building are present or will be present in the foreseeable future.
Groundwater Ingestion	Pathway Incomplete	Contaminants are not expected to migrate to groundwater.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source.
Wild Foods Ingestion	Pathway Incomplete	The affected area is in a roadway and adjacent drainage ditch, wild foods were not observed.
Exposure to Ecological Receptors	De-Minimis Exposure	Residual contamination remaining at the site is not likely to affect ecological receptors because of the limited extent of contamination which has been covered by clean fill.

**Notes to Table 2:** “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.

### **ADEC Decision**

Remaining petroleum contamination in soil is below approved cleanup levels. 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 off-site (the site is shown in the attached figure) requires ADEC approval in accordance with 18 AAC 75.325. 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.

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

The site, as well as the surrounding facility, is bound by spill reporting requirements of 18 AAC 75.300.

### **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 99811-1800, 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 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.

Sincerely,



Chelsy Passmore  
Environmental Program Specialist