

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File No: 2408.38.007

Return Receipt Requested

Article No: 7010 2780 0000 2178 4506

February 14, 2011

Kate McIntyre
Project Manager
Lower Kuskokwim School District
Plant Facilities Department
P.O. Box 305
Bethel, AK 99559

Re: Decision Document; Chefnak School Tank Farm
Cleanup Complete Determination-Institutional Controls

Dear Mr. Anthony:

The Alaska Department of Environmental Conservation (ADEC), Contaminated Sites Program (CSP) has completed a review of the project file and environmental records associated with the Chefnak School Tank Farm site, located in Chefnak, 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 as long as the site is in compliance with established institutional controls.

This letter, which is based on the administrative record for the Chefnak School Tank Farm, 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 Institutional Controls (ICs) determination.

Introduction

Site Name and Location:
Chefnak School Tank Farm
Chefnak, AK 99561

Name and Mailing Address of Contact Party:

Kate McIntyre
Lower Kuskokwim School District
Plant Facilities Department
P.O. Box 305
Bethel, AK 99559

ADEC Site Identifiers

File: 2408.38.007
Hazard ID: 3781

Regulatory authority under which the site is being cleaned up:

18 AAC 75

Background

Reported overflow spills have occurred at the former day tank area at this location. A 2001 site reconnaissance at the school identified contamination at the former school tank farm and day tank areas.

Site Characterization and Cleanup Actions

Initial site characterization took place in 2001 at both the former day tank area and the former tank farm area showing soil concentrations up to 46,500 mg/kg diesel range organics (DRO) and 0.101 mg/kg benzene. Additional site characterization was performed in 2008 and 2009. Soil concentrations up to 320 mg/kg GRO and 19,200 mg/kg DRO were identified as a result of this assessment.

The day tanks, tank farm, and 250 cubic yards of contaminated soil were removed as part of a major school renovation project in 2010. The project made improvements at the community landfill so that excavated soil could be received by the landfill and used as cover in August 2010. Excavation confirmation samples collected showed up to 1,440 mg/kg DRO with evidence of a biogenic contribution based on review of chromatograms. A limited extent of soil contamination remains in an area that will be fenced upon completion of the school extension.

Contaminants of Concern

During the investigations at the site, soil samples were analyzed for the following contaminants: benzene, toluene, ethylbenzene, and xylenes (BTEX); gasoline range organics (GRO); DRO; residual range organics (RRO); and polynuclear aromatic hydrocarbons (PAHs).

Groundwater was not sampled as part of this effort. Groundwater in this area is below barriers of permafrost and lava bedrock. Based on these analyses and

knowledge of the source area, the following Contaminant of Concern was identified.

- Diesel Range Organics (DRO)

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2 Under 40 inch Zone, Migration to Groundwater (MTG).

<u>Contaminant</u>	<u>MTG Site Cleanup Level (mg/kg)</u>
• Diesel Range Organics (DRO)	250

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 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-minimis exposure	Remaining contaminant concentrations are below ADEC’s direct contact cleanup levels.
Sub-Surface Soil Contact	De-minimis exposure	Remaining contaminant concentrations in the subsurface are below ADEC’s direct contact cleanup levels.
Inhalation – Outdoor Air	De-minimis exposure	The remaining soil contaminant concentrations are well below the inhalation levels for all volatile compounds; therefore, risk via this pathway is considered insignificant.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	School buildings are not in contact with ground surface in this “boardroad” community. Future structures will be built on pilings and not in contact with the ground surface. Therefore, risk via this pathway is considered incomplete.
Groundwater Ingestion	De-minimis exposure	Well located at school is screened at 233 to 243 feet bgs with a permafrost and lava barrier above. The community well is similarly constructed. Therefore risk via this pathway is considered insignificant.

Surface Water Ingestion	Pathway Incomplete	Surface water within ¼ mile not used as regular source for drinking water. Public wells and rainwater collected is used as regular drinking water source.
Wild Foods Ingestion	Pathway Incomplete	Recent site data show that contaminants do not have the potential to bioaccumulate.
Exposure to Ecological Receptors	De-minimis exposure	More disturbance of this area would cause more harm than good due to the tundra environment.

Notes to Table 1: “De-minimis exposure” means that in ADEC’s judgment, receptors are unlikely to be affected by the minimal volume 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.

ADEC Decision

The 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 Lower Kuskokwim School District shall report to ADEC every five years to document land use; or report as soon as Lower Kuskokwim School District 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. Installation of groundwater wells will require approval from ADEC.
3. 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.)
4. ~~Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.~~

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.

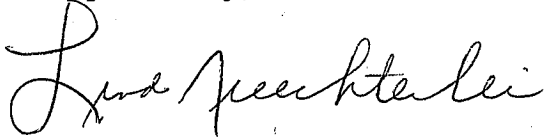
This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

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 within 30 days of receipt of this letter. 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 Program Manager

Recommended By,



Keather McLoone
Environmental Program Specialist

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

Cc: Max Schwenne, Oasis
Pat Desmet, LKSD

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

Lower Kuskokwim School District agrees to the terms of this Cleanup Complete with ICs determination as stated in this Closure Decision Document dated **February 14, 2011** for the Chefnak School Tank Farm; Hazard ID: 3781. 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 18 AAC 75.380(d).

Signature of Authorized Representative, Title
Lower Kuskokwim School District

Printed Name of Authorized Representative, Title
Lower Kuskokwim School District

Note to Responsible Person (RP):

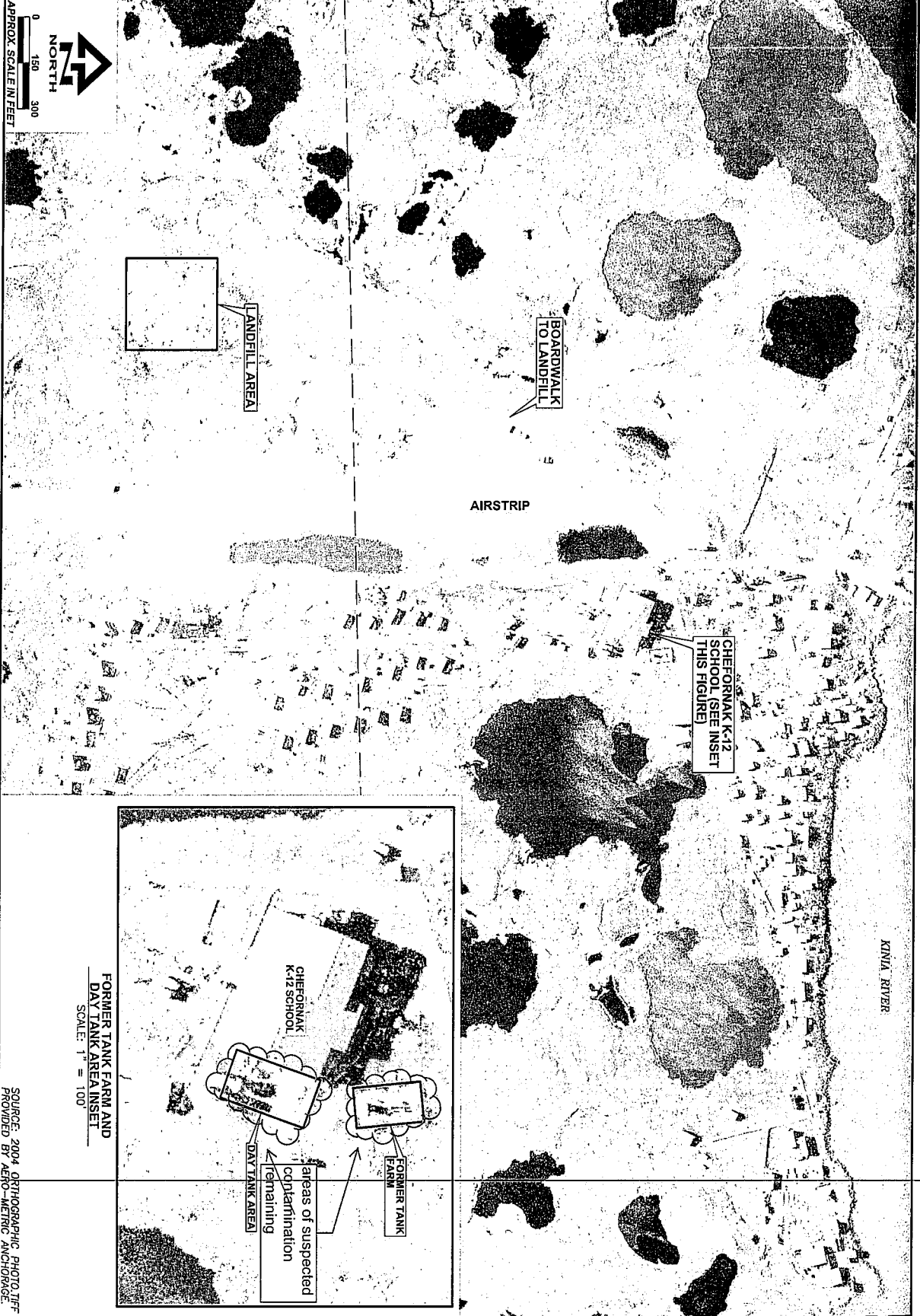
After making a copy for your records, please return a signed copy of this form to the ADEC project manager, Keather McLoone at the address on this correspondence within 30 days of receipt of this letter.

ADEC File No. 2408.38.007
Hazard ID: 3781
ADEC Project Manager: Keather McLoone

For Internal Use Only

***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.



SOURCE: 2004 ORTHOPHOTOGRAPHIC PHOTO TIFF PROVIDED BY AERO-METRIC ANCHORAGE.



DATE: OCTOBER 2009
CHKD: L.J.S.
DRAWN: C.E.H.
PROJ. No.: 53-003
825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

SITE PLAN

CHEFORNAK SHOOOL
K-12 RENOVATION/ADDITION
Chefornak, Alaska

FIGURE

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