STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 330.38.030

August 31, 2006

Mr. Darren Mulkey
M & O Environmental Compliance Coordinator
Alaska Department of Transportation & Public Facilities
2301 Peger Road
Fairbanks, AK 99709-5399

Re: Record of Decision
ADOT&PF Jim River Maintenance Camp
Mile 138 of the Dalton Highway
Reckey # 1994730122001

Dear Mr. Mulkey:

The Alaska Department of Environmental Conservation, Contaminated Sites Program, (ADEC), reviewed the document entitled *Results of Groundwater Sampling Jim River Maintenance Camp Jim River, Alaska.* Based on the information presented in this report and data contained within the administrative case file, ADEC has determined that soil and groundwater contamination remains at the site above the most stringent 18 AAC 75 cleanup levels. However, the nature and extent of this contamination do not pose a risk to human health or the environment, and as a result, no further cleanup action is required at this time subject to conditions outlined in the following pages.

Please note the following information that was considered in making the determination on the environmental status of the site.

Site Background
The Alaska Department of Transportation and Public Facilities (ADOT&PF) Jim River Maintenance station lies approximately 47 miles south of Coldfoot, Alaska at Mile 138 of the Dalton Highway. There is a shop building constructed on an actively refrigerated concrete slab foundation and a well house constructed around the on-site drinking water well located approximately 800 feet northwest (hydraulically down gradient) of the shop, near the banks of the Jim River. Groundwater is reported between 4 to 12 feet below ground surface (bgs). Sources of contamination at the site include several releases of diesel fuel to the surface, and subsurface soil contamination from a leaking underground storage tank (UST) containing used-oil.

UST Removal
The UST was removed in 1998 and soil at the bottom of the excavation contained diesel range organics (DRO), residual range organics (RRO), and benzene above ADEC cleanup levels. The

concentrations ranged as high as 1410 mg/kg DRO; 5470 mg/kg RRO; and 0.373 mg/kg benzene. Polychlorinated biphenyls (PCBs) and halogenated volatile organic compounds were not detected. ADOT&PF has since installed utilities in the area of the former UST and these utilities and the building foundation precluded removal of additional soil. ADEC determined the cleanup actions to be complete (to the extent practicable) and a conditional closure status was approved for the site in 2005.

1994 Release

A release of approximately 1,050 gallons of diesel fuel occurred at the facility on October 26, 1994 as the result of a cracked fuel meter located on the northeast end of the life support building. The fuel was released to the interior of the building and (according to the spill report) impacted an area of soil under the building. The soil was described as silty, sandy, gravel. Five recovery wells, five monitor wells, and a 50 foot long subsurface oil barrier were installed in the vicinity of the spill site. Floating product was encountered in two of the recovery wells resulting in 883 gallons of fuel had been recovered. Product recovery was discontinued on November 8, 1994 due to cold.

1995 Release

On January 11, 1995, another release of approximately 400 gallons of diesel fuel occurred at the generator building. This release resulted from the accidental opening of a fuel line that had been disconnected. ADOT personnel recovered approximately 110 gallons of fuel from the ground surface and a release investigation determined that most of the fuel had migrated beneath the building. There were utility lines in the area of the generator building that limited assessment test pits and, therefore, the down gradient extent of the release was not defined. Five additional monitoring wells were installed.

1996 Release

Approximately 2,200 gallons of diesel fuel was released from the secondary generator building on January 18, 1996. 850 gallons of product was recovered from trenches excavated near the spill, and another 75 gallons of free product was recovered from MW-12, bringing the recovery total to 925 gallons. A subsurface barrier was installed down gradient of spill area and 35 cubic yards of contaminated soil was excavated. The soil was transported off site for thermal remediation. Two additional groundwater monitoring wells (MW-15, and MW-16) were installed between the area of impact and the drinking water well.

Drinking Water

Samples from the drinking water well in the fall of 1996 detected low levels (below ADEC cleanup levels) of toluene and ethylbenzene. However, the laboratory chemist indicated that these results were likely due to biogenic interference, and that the groundwater in the area of the drinking water well may be under the influence of surface water from the Jim River. The drinking water well was sampled again in 1997, 2003, 2004, and 2006. No analytes were detected above the laboratory practical quantitation limits (PQL) in those samples.

Soil

Soil samples were collected during the installation of MW- 6, 8, 13, 14, 15, and 16 at depths ranging from three to 10 feet. Only one sample exceeded the migration to groundwater cleanup level for DRO. It was collected from MW-8 at 7.5 feet bgs and contained 1250 mg/kg DRO.

Benzene in that sample was not detected above a laboratory practical quantitation limit (PQL) of 0.63 mg/kg but, due to matrix interference, the PQL was above the cleanup level.

Groundwater

The monitor wells were sampled on numerous occasions from 1994 to 2004. Table 1 summarizes the results of those sampling events and the samples without detections above the cleanup level have been excluded from the table.

Table 1. Groundwater sample results (1994 – 2005) and ADEC Cleanup Levels (mg/L).

Well No.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	GRO	DRO
RW-1	9/1/1996	N/A	N/A	N/A	N/A	N/A	**0.02' product**
RW-3	9/1/1996	N/A	N/A	N/A	N/A	N/A	**sheen**
RW-4	10/23/1995	**0.0083**	0.0140	0.091	0.610	N/A	N/A
RW-X	8/1/1996	N/A	N/A	N/A	N/A	N/A	**sheen**
	9/1/1996	N/A	N/A	N/A	N/A	N/A	**sheen**
RW-Y	9/1/1996	N/A	N/A	N/A	N/A	N/A	**sheen**
MW-6	10/23/1995	**0.006**	<0.001	0.0048	0.007	N/A	N/A
	7/7/1996	**0.0088**	0.0057	0.0086	0.1399	N/A	N/A
	8/6/1996	**0.0079**	0.0015	0.016	0.0913	N/A	N/A
MW-8	11/9/1994	**0.025**	0.014	0.347	1.959	N/A	N/A
	10/23/1995	**0.037**	0.0057	0.174	1.691	N/A	N/A
	8/6/1996	**0.0138**	0.0021	0.1362	0.6526	N/A	N/A
	9/12/1996	**0.0254**	0.0119	0.109	0.783	N/A	N/A
MW-9	9/17/2003	<0.0005	<0.002	<0.002	0.0021	<0.09	**2.21**
MW-10	9/12/1996	<0.001	0.0042	0.0132	0.069	N/A	**sheen**
MW-11	9/12/1996	<0.001	<0.001	0.0036	0.0237	N/A	**sheen**
MW-12	10/24/1995	**0.015**	0.0075	0.024	0.071	N/A	N/A
	8/6/1996	N/A	N/A	N/A	N/A	N/A	**0.86' product**
	9/12/1996	N/A	N/A	N/A	N/A	N/A	**0.16' product**
ADEC Cleanup levels		**0.005**	**1.0**	**0.7**	**10**	**1.3**	**1.5**

Contaminants of Concern

Contaminants of concern at the site are DRO and benzene.

Cleanup Levels

The soil cleanup levels established for this site are the 18 AAC 75.341 Tables B1 and B2 Method Two, "under 40 inch zone" migration to groundwater levels. The groundwater cleanup levels established for this site are the 18 AAC 75.345 Table C levels.

Pathway Evaluation

The site is an industrial/commercial maintenance facility operated by ADOT&PF. It is remote, with no nearby residential areas. The pathways evaluated at the site include: ingestion of soil and groundwater, inhalation of indoor and outdoor air, and migration to groundwater or surface water. All of these pathways are considered complete.

The contamination remaining on site does not exceed ingestion or inhalation levels and these pathways do not pose an unacceptable risk to humans at the site.

The migration to groundwater pathway is a complete pathway and soil contamination remains above the 18 AAC 75.341 Method Two levels. The drinking water well at the site has been sampled 4 times since 1997 with no analytes detected. Contamination has not been detected in groundwater samples in "sentinel" wells up gradient from the drinking water well and risk to the drinking water quality appears unlikely.

The migration to surface water was considered but the concentrations of contaminants are low and not considered a risk to surface water bodies. The indoor air pathway is not at risk because the contamination remaining is not readily volatile.

ADEC Decision

Based on the information provided to date, ADEC has determined that the cleanup actions (soil removal and product recovery) employed at the ADOT&PF Jim River Maintenance Camp have been effective in removing the majority of the contamination. The contamination remaining beneath the generator and life support buildings does not pose an unacceptable risk to human health or the environment and it will naturally attenuate over time. ADEC will require no further remedial action provided site specific conditions and/or controls are attached to the property. This determination is subject to the following conditions:

1. An Institutional Control will be added to the ADEC Contaminated Sites Database identifying the nature and extent of contamination remaining on site.

2. In accordance with 18 AAC 75.325(i), ADEC approval must be obtained prior to removal and/or disposal of soil or groundwater from this site to an off-site location. In addition, the ADEC should be notified prior to any excavation in the impacted area as screening for impacted material and the use of properly trained excavation personnel may be required.

3. In accordance with 18 AAC 75.380(d)(2), additional investigation and cleanup may be required if new information is discovered which leads the ADEC to make a determination that the cleanup described in this decision is not protective of human health, safety, and welfare or the environment.

ADEC will consider a Site Closure (and removal of institutional controls) only after the soil and groundwater achieves the established cleanup levels for the site.

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, P.O. Box 111800, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 15 days of the decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, P.O. Box 111800, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800 Juneau, Alaska 99801, within 30 days of the decision. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have any questions, please contact Kim DeRuyter at (907) 451-2752 or via e-mail at Kim_DeRuyter@dec.state.ak.us.

Sincerely,

Kim DeRuyter
Environmental Program Specialist

Sincerely,

Jim Frechione
Environmental Program Manager

cc: Mark Lockwood