STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 2268.26.005
Certified Return Receipt
Article No: 7007 3020 0000 1948 9848

July 23, 2009

Mr. William Scott Eubanks
Alaska Hardrock Inc.
P.O. Box 2882
Palmer, Alaska 99645

address was corrected to: P.O. Box 2407 & sent again 8/4/09

Re: Record of Decision (ROD); Willow Creek Mill Site
Corrective Action Complete Determination-Institutional Controls

Dear Mr. Eubanks:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Willow Creek Mill Site located at Mile 22.5 Hatcher Pass Road. 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 Willow Creek Mill 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 Corrective Action Complete with ICs determination.

Introduction

Site Name and Location:
Willow Creek Mill Site
22.5 mile Hatcher Pass Road
Palmer, Alaska 99645

Name and Mailing Address of Contact Party:
William Scott Eubanks
Alaska Hardrock Inc.
P.O. Box 2882
Palmer, Alaska 99645

Database Record Key and File Number:
ADEC Reckey: 199722021902
File: 2268.26.005
Hazard ID: 23187

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and18 AAC 78

Background
This site has been impacted by leaks and spills from two 10,000-gallon diesel underground storage tanks (USTs) designated as Tanks 1 & 2; two 5,000-gallon diesel USTs designated as Tanks 3 & 5; one 2,000-gallon gasoline UST designated as Tank 4; and the dispenser island. The five tanks, dispenser island and associated piping were removed from the site in August 1997.

It should be noted that this closure decision does not apply to any contamination that may be a result of a used oil tank that is designated as Tank 6. This used oil tank (Tank 6) has not yet been decommissioned or investigated for contamination. Tank 6 is located under the concrete slab inside the shop building, and is listed as "out of service" on the department's UST database. It must be decommissioned and a site assessment performed in accordance with the regulations governing USTs (18 AAC 78).

Contaminants of Concern
During the course of investigation and cleanup at this site, soil samples collected at this site have been analyzed for: gasoline range organics (GRO); diesel range organics (DRO); residual range organics (RRO); benzene, toluene, ethylbenzene, and xylene (BTEX); and lead. Based on these data and knowledge of the source of contamination, the following Contaminants of Concern were identified:

- Benzene
- Gasoline Range Organics (GRO)
- Diesel Range Organics (DRO)
- Residual Rage Organics (RRO)

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

Contaminant	Site Cleanup Level (mg/kg)
• Benzene	0.025
• Gasoline Range Organics	300
• Diesel Range Organics	250
• Residual Range Organics	11,000

Site Characterization and Cleanup Actions

Following the removal of the five regulated USTs, the dispenser island, and associated piping, in August 1997, the excavations were left open until receipt of confirmation sample results. Upon receipt of the initial confirmation samples the areas with the highest contamination at Tanks 1 & 2 were excavated further and additional confirmation samples were collected in September 1997. Further excavation was not possible at Tanks 3, 4 and 5 due to the proximity of the mill and shop buildings. Approximately 280 cubic yards of potentially contaminated material were removed and stockpiled on a liner. Groundwater was not encountered during the excavation of the USTs which extended to total depth of between 13 and 14 feet below ground surface (bgs). Shallow groundwater is said to be between 18 and 25 feet bgs. The drinking water wells on site are completed at a depth of about 360 feet bgs, into the bedrock.

Initial sampling from the area of Tanks 1 & 2 showed DRO up to 733 mg/kg, GRO at 1.3 mg/kg and non-detectable BTEX. Soil samples collected after the second excavation from the area of Tanks 1 & 2 showed DRO up to 735 mg/kg and GRO up to 52.4 mg/kg with non-detectable concentrations of benzene.

Initial sampling from the area of Tanks 3 & 4 and beneath the dispenser island showed DRO up to 3,070 mg/kg, GRO up to 1,170 mg/kg and benzene up to 6.48 mg/kg. Lead was found under Tank 4 at 5.9 mg/kg. The initial sampling from under Tank 5 showed DRO up to 5.60 mg/kg, GRO at 851 mg/kg and non-detectable benzene.

The stockpiled soil was sampled prior to consolidation in a lined, bermed storage cell. The initial stockpiled soil results were up to 2,070 mg/kg DRO; 87.4 ppm GRO and 0.0672 mg/kg benzene. When the stockpile was consolidated, piping was used to create aeration galleries to facilitate remediation by allowing ventilation.

In July 2000 more soil sampling was conducted at the previous excavation areas that showed the highest remaining contamination in the 1997 sampling event. In 2000, DRO, GRO, and BTEX were not detected in the area of Tanks 1 & 2. RRO was found at 73.8 mg/kg near Tanks 1 & 2. Lead was not analyzed in 2000 because it was below cleanup levels in 1997.

Tank 3 had no detectable DRO, GRO, BTEX, or RRO contamination in the 2000 sampling event. Soil under Tank 4 near the dispensing island showed GRO at 35.4 mg/kg; DRO at 826 mg/kg and RRO at 17.2 mg/kg. Benzene and toluene were not detected near Tank 4 and ethylbenzene and xylene were found but at concentrations well below the most stringent cleanup levels. Tank 5 soil samples did not show any GRO, benzene, toluene or ethylbenzene. Xylene was detected but was well below cleanup criteria. DRO was found up to 215 mg/kg and RRO was up to 126 mg/kg near Tank 5. All of the concentrations found in the 2000 excavation sampling were below cleanup levels.

The consolidated stockpile was sampled in July, 2000; the only constituent above cleanup levels was DRO at 299 mg/kg. All other contaminants were non-detect or at concentrations well below the most stringent cleanup criteria. The stockpiled soil was mixed to allow for aeration, and the perforated piping was re-installed in the stockpiles.

In September 2004 the consolidated stockpile was sampled again and all laboratory results were below the ADEC cleanup levels. GRO and BTEX were not detected in any of the five soil samples taken, and DRO was found up to 97.6 mg/kg.

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 dermal contact with soil and migration to groundwater. The outdoor inhalation and ingestion exposure risk is acceptable as the remaining concentrations are below Method Two inhalation and ingestion cleanup levels.

Near surface groundwater at the site is not used as a drinking water source, and drinking water wells at this site are 360 feet below ground surface in bedrock. The dermal contact pathway is considered incomplete as the majority of the contamination remaining at the site is below the surface and is not available to receptors. The migration to groundwater pathway may be complete but as previously mentioned, the drinking water wells are 360 feet below ground surface. There are no other drinking water wells within ¼ mile of this site.

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.

ADEC Decision
The ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Corrective Action Complete with Institutional Controls 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 Alaska Hardrock, Inc. shall report to ADEC every five years to document land use, or report immediately if there is a 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 78.600 (h). 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.

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 Corrective Action Complete determination, then the Institutional Controls will be terminated.

It should be noted that this closure decision does not apply to any contamination that may be a result of a used oil tank that is designated as Tank 6. This used oil tank (Tank 6) has not yet been decommissioned, or investigated for contamination. Tank 6 is located under the concrete slab inside the shop building and is listed as "out of service" on the department's UST database. It must be decommissioned and a site assessment performed in accordance with the regulations governing USTs (18 AAC 78).

This determination is in accordance with 18 AAC 78.276(f) 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, Pam Clemens at (907) 269-7551.

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By

Pam Clemens
Environmental Specialist

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

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

William Scott Eubanks of Alaska Hardrock, Inc. agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this Record of Decision (ROD) document dated July 23, 2009 for the Willow Creek Mill Site Hazard ID: 23187. 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 78.276(f).

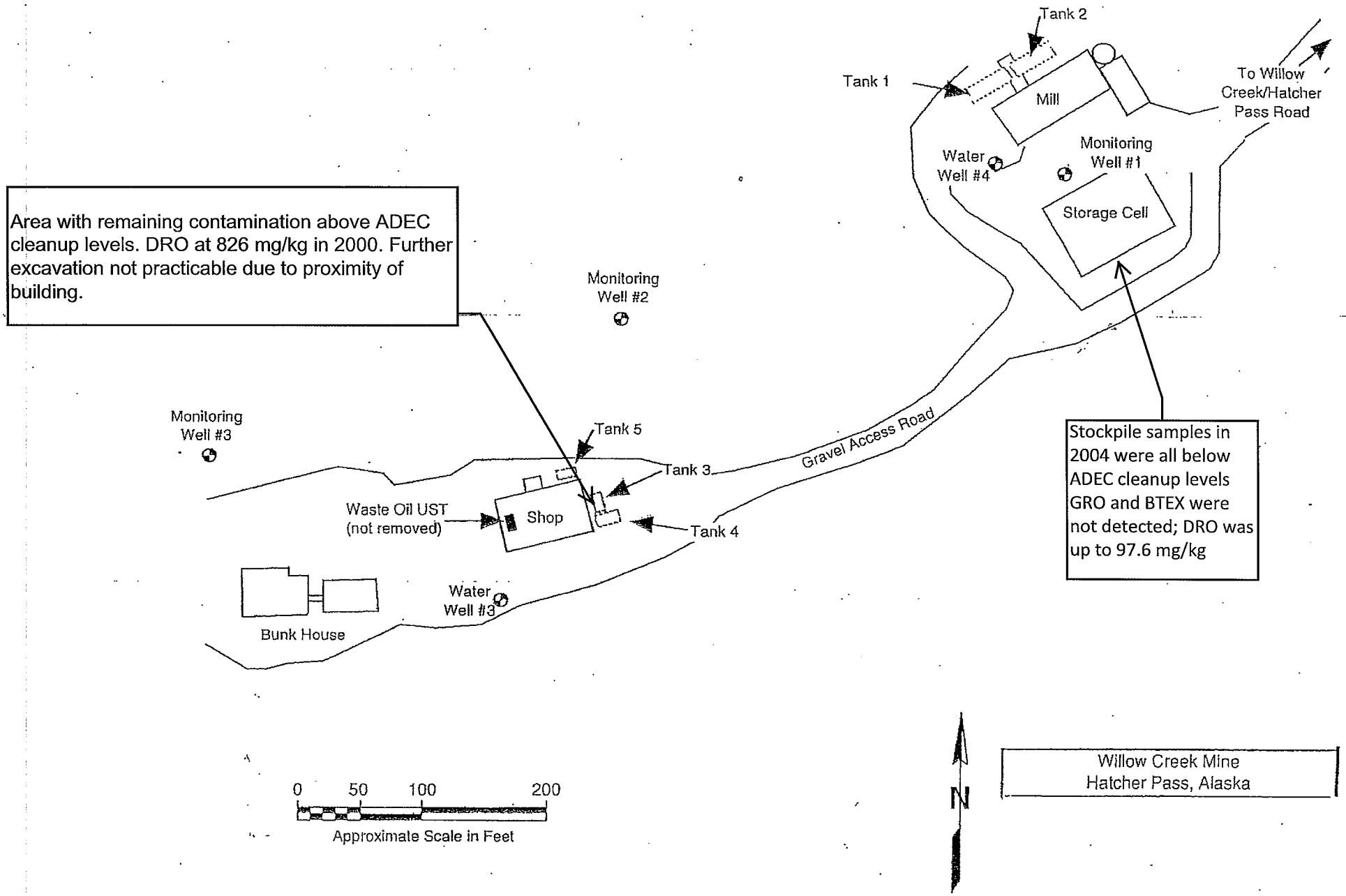
W. Scott Eubanks

Signature of Authorized Representative, Title
William Scott Eubanks, Alaska Hardrock, Inc.

William Scott Eubanks

Printed Name of Authorized Representative, Title
William Scott Eubanks, Alaska Hardrock, Inc.

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, Pam Clemens, at the address on this correspondence within 30 days of receipt of this letter.


Area with remaining contamination above ADEC cleanup levels. DRO at 826 mg/kg in 2000. Further excavation not practicable due to proximity of building.
Tank 2
Tank 1
Mill
To Willow Creek/Hatcher Pass Road
Water Well #4
Monitoring Well #1
Storage Cell
Monitoring Well #2
Monitoring Well #3
Tank 5
Tank 3
Gravel Access Road
Waste Oil UST (not removed)
Shop
Tank 4
Stockpile samples in 2004 were all below ADEC cleanup levels GRO and BTEX were not detected; DRO was up to 97.6 mg/kg
Water Well #3
Bunk House
0 50 100 200
Approximate Scale in Feet
N
Willow Creek Mine
Hatcher Pass, Alaska