

**DECISION RECORD
AND
FINDING OF NO SIGNIFICANT IMPACT**

RED DEVIL MINE

Decision:

It is my decision to remove the hazardous and solid wastes from the Red Devil Mine, near the community of Red Devil, Alaska, at T. 19 S., R. 44 W., SE 1/4, Section 6, Seward Meridian, starting June 1, 1999. Further sampling of soils, water, and sediment will also be performed to determine if additional soils need to be removed from the site. Soils are planned to be transported by aircraft to a licensed recycling and/or disposal facilities.

Rationale for Decision:

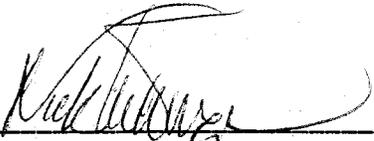
The Proposed Action removes contaminants from the environment and protects the environment from future contamination. The lands are within the boundary of the Alaska Southwest Planning Area Management Framework Plan (MFP), dated November 1981. The Proposed Action is the most environmentally protective option. This plan conforms to requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), associated Alaska statutes, and site specific guidance by the U.S. Environmental Protection Agency and Alaska Department of Environmental Conservation.

Finding of No Significant Impact:

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that the impacts are not expected to be significant and an environmental impact statement is not required.

ANILCA Section 810 Compliance:

No restrictions of subsistence uses under Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) have been found.



Anchorage Field Manager



Date

ANCHORAGE FIELD OFFICE
NEPA CLEARANCE SHEET

CX/AD/EA No. (Circle One): AK-040-99-013

Serial/Case File No.: AA-081686

Applicant: Bureau of Land Management, Anchorage Field Office

Proposed Action: Remove hazardous and solid wastes from Red Devil Mine; sample and analyze area soils, water, and sediment.

Environmental
Coordinator:

M. J. Hanson

Date: 3-8-99

Group Manager, Realty,
Energy & Minerals:

J. R. Rouse

Date: 3/9/99

Group Manager,
Renewable Resources:

Chris Hansen

Date: 3/9/99

**ANCHORAGE FIELD OFFICE
NEPA ROUTING AND TRACKING FORM**

CX/AD/EA No. (Circle One): AK-040-99-13

Applicant: Bureau of Land Management, Anchorage Field Office

Proposed Action: Remove hazardous and solid wastes from Red Devil Mine; sample and analyze area soils, water, and sediment.

Serial/Case File No.: AA-081686

<u>SPECIALIST REVIEW</u>	<u>RESPONSIBLE SPECIALIST</u>	<u>INITIAL</u>	<u>DATE</u>
*ACECs	Kelley	NA	
*Air Quality	Alcorn	MA	24 Feb 99
*Cultural Resources (Paleontology)	Redding	MA DR	3 MAR 99 * <i>[Handwritten]</i>
*Environmental Justice	Preparer	MA	24 Feb 99
*Farmlands, Prime/Unique	Preparer	MA	24 Feb 99
Fisheries	Scott	AS	03/05/99
*Floodplains	Kelley	K	2/25/99
Forestry	Zaidlicz	N/A Z	3/3/99
Iditarod Trail	Zaidlicz	N/A Z	3/3/99
Land Status	Preparer	MA	24 Feb 99
Lands/Realty	Realty Spec.	Kuo	4 Mar 99
Minerals	Geologist	MA	24 Feb 99
*Native American Religious Concerns	Redding	DR	3 MAR 99
Recreation	Schlapfer	SS	2/24/99
Soils	Kelley	K	2/25/99
*Subsistence	J. Denton	JD	3/8/99
Surface Protection	Kelley	K	2/25/99
*T&E Species	Seppi/Blank	DB BS	3/2/99
Vegetation	Blank	NA	
Visual Resources	Schlapfer	SS	2/24/99
*Wastes, Hazardous/Solid	Alcorn	MA	24 Feb 99
*Water Quality, Drinking/Ground	Scott	AS	03/05/99
*Wetlands/Riparian Zones	Blank/Seppi	DB BS	3/2/99
*Wild & Scenic Rivers	Schlapfer	N/A	
*Wilderness	Schlapfer	SS	2/24/99
Wildlife	Seppi	BS	3/2/99

* Critical Elements

Preparer: Michael Alcorn *[Signature]* Date: 24 Feb 98

ENVIRONMENTAL ASSESSMENT

Case File No. : AA-081686

EA# AK-040-99-013

**Type of
Action:**

Remove Waste Materials and Sample at Red Devil Mine.

Location:

Near Red Devil, Alaska, T. 19 S., R. 44 W., SE 1/4, Section 6, Seward Meridian.

Applicant:

Bureau of Land Management
Anchorage Field Office

**Prepared
By:**

Michael G. Alcorn, Environmental Protection Specialist

**Preparing
Office:**

Bureau of Land Management
Anchorage Field Office
6881 Abbott Loop Road
Anchorage, Alaska 99507

Date:

March 8, 1999

I. INTRODUCTION

The Red Devil Mine is located approximately 250 miles west of Anchorage, Alaska, 8 miles northwest of Sleetmute, and 2 miles southeast of the community of Red Devil. The site is bisected by Red Devil Creek, which flows about 0.3 miles north to reach the Kuskokwim River.

The Red Devil mercury mine was operated sporadically from 1933 until 1971. During its operational life approximately 35,000 flasks of mercury were produced. A flask of mercury weighs 76 pounds (~1/2 gallon). The site covers about 10 acres and consists of a surface mining area, a collapsed adit, a vertical shaft, three tailing piles, three settling ponds, five large fuel tanks, drum storage areas, the remains of approximately 18 buildings used for housing, laboratory, mill, steam plant, and chemical storage sheds. Physical hazards at the site such as the collapsed adit, vertical shaft, and building ruins will be addressed under the abandoned mine land program.

Site Investigations have been completed by the Alaska Department of Environmental Conservation (ADEC), U.S. Environmental Protection Agency (EPA), and BLM during the late 1980's and early 1990's. BLM agreed with ADEC and EPA in 1989 to remove or neutralize site chemicals and electrical transformers, to annually monitor surface water, post site warnings, and restrict site access. BLM has posted warnings, removed transformer oil, and made effort to restrict access. Annual water monitoring has not been done consistently.

In 1998, BLM tasked its contractor to develop a work plan to remove hazardous materials from the site. These materials include: copper sulfate, sodium hydroxide, potassium carbonate, 55-gallon drums (contents include diesel and water, cutting oil, aero xanthate, grease), asbestos, and lead-acid batteries. Limited quantities of mercury contaminated soot and soil, and petroleum stained soil will also be removed. Site soils, water, and sediment will be sampled and analyzed according to EPA and ADEC guidance.

The final remedial action will address mercury, antimony, and arsenic leaching from tailings piles and settling ponds. These metals are naturally occurring in the area geology. The excavated and crushed rocks that make up the settling ponds and tailings piles leach metals. The metals dissolve out of the rocks due to their exposure to water and oxygen.

A field visit was completed on June 23, 1998 by a BLM representative and contractors. The removal of hazardous materials and sampling is scheduled to be completed during the 1999 field season.

A. Need for the Proposed Action

The protection of soils and surface waters at Red Devil Site is essential to the health of the Kuskokwim watershed and the health and safety of area residents. ADEC and EPA have requested additional sampling and removal of abandoned chemicals, wastes, and petroleum products. The Proposed Action will help protect the Kuskokwim watershed from future contamination.

B. Conformance With Land Use Plan

The lands are within the boundary of the Alaska Southwest Planning Area Management Framework Plan (MFP), dated November 1981. The Proposed Action is covered under the Watershed (W-1.1) Activity Objective of the MFP which states that BLM is to "maintain water quality in accordance with the Alaska Water Quality Standards".

C. Relationship to Statutes, Regulations, Policies, Plans, or Other Environmental Analyses

The Proposed Action is necessary to comply with guidance from EPA and ADEC based on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Clean Water Act, and associated State of Alaska regulations.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The Red Devil Mine is near the community of Red Devil, Alaska, at T. 19 S., R. 44 W., SE 1/4, Section 6, Seward Meridian (see attached map). The BLM is proposing to remove and dispose of abandoned mineral processing chemicals, lead-acid batteries, drums containing petroleum products, a limited quantity of mercury contaminated exhaust soot and soil, and oil stained soil (≤ 1 yd³). The BLM will also sample and analyze area soils, water, and sediment, as requested by EPA, and ADEC. Removal and sampling activities are planned for June 1999. The procedure is planned to manually place the above materials in drums or similar containers. A forklift or similar equipment may be used to lift the full drums. The waste will be transported by small truck to the Red Devil airstrip and flown to Anchorage for transportation to appropriate recycling facilities or licensed disposal facilities. A temporary bridge will be placed across Red Devil Creek to access the eastern portion of the site due to a bridge washout. The bridge may be constructed by utilizing a backhoe to place a culvert in the creek and then smooth the roadway with gravel. Alders will be trimmed back from the partially overgrown roadway to allow vehicle access. All work areas in this project are on former mine operations areas which have previously disturbed soils and vegetation. Environmental consultants have been hired by BLM to plan and implement the

removal and sampling operations at the site according to all federal and state environmental and safety regulations. Future site activities may include additional sampling and soil removal. Environmental impacts will be reassessed if future work exceeds the scope of this environmental assessment. Additional, more detailed plan specifications are available in the case file: AA-081686.

B. No Action Alternative

Under the No Action Alternative, the BLM will continue to implement current management practices until another Proposed Action is designed.

III. AFFECTED ENVIRONMENT

The Red Devil Mine is located approximately two miles southeast of the community of Red Devil, approximately 0.3 miles south of the Kuskokwim River. The site covers about 10 acres. (See the attached map for location. Additional maps are available in the case file, AA-081686.)

A. Cultural Resources

Aboriginal inhabitants of this area were the Kuskokwim River Ingalik (VanStone and Goddard 1981). Traditionally, habitation sites were located along rivers or major streams. While areas such as the Red Devil Mine may have been used by the aboriginal inhabitants in the past, there is little potential for any archaeological remains to have survived the mining activity conducted here in the twentieth century. Mercury was discovered at this site in 1933. Mining began in 1939 and continued under several operators until 1972 with a short hiatus during World War II (Oswalt 1980). In spite of the relatively recent activity at this mine, none of the structures remain intact. Structures have succumbed to the ravages of weather and human scavenging for building materials. None of the structures appear to have retained sufficient integrity to be eligible to the National Register of Historic Places. Therefore, no further consultation is necessary under section 106 of the National Historic Preservation Act.

B. Lands

The lands are encumbered by Village Selection F-14936-A (excluded mining claims) and F-14936-A2 (selected all unpatented lands not selected by F-14936-A), (Kuskokwim Corporation), Regional Selection AA-70149, (Calista Corporation) and State Selection AA-74575. There are no easement concerns.

C. Threatened and Endangered Species

The threatened and endangered species clearance dated February 17, 1999, is located in case file AA-081686.

D. Wetlands/Riparian Zones

The Red Devil Creek flows through the site and to the Kuskokwim River. The banks of these water bodies are riparian zones and may be considered wetlands. However, the portion of Red Devil Creek that flows through the site has been altered due to former mining activities. The creek channel is through tailings piles and is littered with empty 55-gallon drums, wooden timbers, and pipe. The creek's discharge varies seasonally, but was measured at 1/2 cubic foot per minute. Observations in July 1998 showed the creek's water filled a channel about 4 feet wide and up to 6 inches deep. The Red Devil Creek is not listed as an anadromous stream by the Alaska Department of Fish and Game (ADFG), therefore it may not fall under Alaska Title 16 requirements for a permit from ADFG. A permit from the U.S. Army Corps of Engineers for construction of a temporary bridge is not required for the Proposed Action. No marshes or similar wetlands have been observed. The topography is steep and well drained. A site specific wetlands survey has not been done for the site.

E. Wastes, Hazardous or Solid

The solid and/or hazardous wastes to be removed under the Proposed Action are elemental mercury, lead, asbestos, diesel, waste oil, grease, and various mineral processing chemicals. Arsenic and antimony have also been identified in mine tailings, but are not part of the removal.

F. Water Quality, Drinking or Ground

Surface and ground water at the site are not used for drinking water purposes. Surface water samples on site and up and down stream have shown elevated levels of metals. The local geology that made the area a viable mining district also causes detectible quantities of metals to be present in surface waters. Water sampled in the Red Devil Creek exceeded EPA drinking water standards for mercury. Water sampled in the Kuskokwim River near the site met EPA drinking water standards for metals analyzed. Surface waters of this region support the local fishing industry and subsistence use. Water quality data are located in case file AA-081686.

G. Air Quality

Ambient air quality at the site was tested with a mercury vapor monitor and photo ionization detector during site investigations in 1988. Results indicated mercury and Volatile Organic Compounds were within permissible exposure levels.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action

There are no impacts expected from the Proposed Action, however, a vehicle or waste handling accident could result in a small spill.

1. Critical Elements

No critical elements of the environment are expected to be adversely affected by the Proposed Action.

2. Threatened and Endangered Species

The impact of the Proposed Action on threatened and endangered species has been evaluated in accordance with the Threatened and Endangered Species Act. Based on the evaluation, the Proposed Action would not affect threatened and endangered plants, animals, or their habitat.

3. Subsistence Uses Under Section 810 of ANILCA

At this time, the Proposed Action will not significantly restrict subsistence uses, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit subsistence user access from currently existing conditions on federal public lands in Alaska.

B. Impacts of the No Action Alternative

Under the No Action Alternative, current management practices would involve continued residence of the chemicals and wastes at the site. This will lead to the continued contamination of nearby soils and surface waters and may allow contaminants to migrate off-site.

1. Critical Elements

The following critical elements of the environment are either not present or would not be affected by the No Action Alternative:

- Areas of Critical Environmental Concern
- Cultural Resources
- Environmental Justice
- Farm Lands (Prime or Unique)
- Floodplains
- Native American Religious Concerns
- Threatened and Endangered Species
- Wild and Scenic Rivers
- Wilderness

2. Air Quality

Chemicals and wastes at the site could enter the air by vaporization or as particulates during disturbance. People trespassing on the site could be exposed to site chemicals by inhalation. Digging, walking, or operating an All-Terrain Vehicle could disturb the soil.

3. Subsistence

Under the No Action Alternative animals that live on the site or regularly visit the site may consume and be exposed to site chemicals. Metals from the site could accumulate in the animals and be passed on to humans who hunt and consume them. Although unlikely, the caustic processing chemicals could pose a health threat to animals on-site. Mercury bioaccumulates in fish and in humans through the consumption of fish.

4. Water Quality, Drinking or Ground

Water quality, surface or ground, is likely to be impacted by the No Action Alternative. The geology of the region and the associated mining activities both lead to the increase of metals in surface waters. Water leaving the site is not used as a drinking water source. In the event individuals used the water from the Kuskokwim River near the site, previous testing has shown that contaminants from this site have not exceeded EPA Drinking Water Standards in the Kuskokwim River.

5. Wetlands/Riparian Zones

The No Action Alternative will allow the contaminants to remain in or near the riparian zone. These contaminants may be harmful to the ecological environment.

6. Wastes, Hazardous or Solid

Under the No Action Alternative, hazardous and solid wastes would remain on site in violation of federal and State regulations. These wastes may impact the site ecology as well as humans in the area.

C. Mitigation Measures

The Proposed Action includes mitigating measures as part of the action. These measures are found in state and federal regulations which dictate specific procedures to safely handle hazardous chemicals and work in contaminated environments. No additional mitigating measures are necessary to ensure this action does not impact the environment.

D. Residual and Cumulative Impacts

No residual or cumulative impacts are expected by implementation of the Proposed Action. Future plans involve sampling of soils, water, and stream sediments around the mine. Future sampling will have no impact on surface water quality, vegetative cover, soils, or organisms inhabiting the area.

V. CONSULTATION AND COORDINATION

A. Persons and Agencies Consulted

The following persons and agencies have been contacted:

US EPA Region X

Mark Ader, Federal Facilities Coordinator

Nick Ceto, Regional Mining Coordinator

Matt Carr, On Scene Coordinator, Anchorage Office

ADEC, Contaminated Sites Program

Eileen Olson

Kuskokwim Corp.

Mike Harper

Calista Corp.

June Macaty

Alaska Inter-Tribal Council

Debra Vo, Executive Director

BLM Alaska State Office

Sally Wisely, Acting State Director

Wayne Svejnoha, Statewide Hazmat Coordinator

Harding Lawson Associates

Stephen Johnson

Wilder Construction

Mark Erickson

B. List of Preparers

Michael G. Alcorn, Environmental Protection Specialist

Bruce E. Seppi, Wildlife Biologist

Jeffrey W. Denton, Subsistence Program Specialist

Donna L. Redding, Archaeologist

Deborah L. Blank, Botanist

Kathy Stubbs, Realty Specialist

BIBLIOGRAPHY

Oswalt, Wendell H., 1980, Historic Settlements along the Kuskokwim River, Alaska: Alaska State Library Historical Monograph No. 7, Juneau.

VanStone, James W. and Ives Goddard, 1981, Territorial groups of West-central Alaska before 1898, *in* Handbook of North American Indians Volume 6: Subarctic (edited by June Helm), Smithsonian Institution, Washington. Pp 556-561.

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ANCHORAGE, ALASKA

REPORT OF EXAMINATION FOR CULTURAL RESOURCES

1. **Abstract:** No further consultation is necessary under section 106 of the National Historic Preservation Act.

2a. **Location:** T. 19 S., R. 44 W., sec.s 6&7 Seward Meridian

USGS Quad: Sleetmute D-4

2b. **Case File #** AA-081686 (EA# AK-040-00-013)

Action Type: hazardous materials removal

3. **Project Description:** **Size** < 1 acre

The BLM Anchorage Field Office proposes to remove and dispose of abandoned mineral processing chemicals, lead-acid batteries, drums containing petroleum products, mercury contaminated exhaust soot, and a limited quantity of oil stained soil (<1/2 cu. yd.). BLM will also sample and analyze area soils, water, and sediment, as requested by the U.S. Environmental Protection Agency (EPA), and the Alaska Department of Environmental Conservation (ADEC).

Topography: north facing slope above Kuskokwim River

Vegetation: spruce/willow

4. **Consultation Procedures:** The Alaska Heritage Resource Survey (AHRS) files were checked, as well as aerial photos and photographs taken at the Red Devil Mine.

5. **Findings:** Site SLT-135 is located approximately three quarters of a mile northwest of the Red Devil mine. There is low potential for prehistoric remains in the mine area. Structures at the mine have lost all architectural integrity. They have suffered from weather and heavy scavenging for building materials.

6. **Recommendations:** Removal of the above described hazardous materials and subsequent limited soil sampling should not impact the collapsed structures at the Red Devil mine. No further consultation is necessary under section 106 of the National Historic Preservation Act.

I certify that this examination complies with pertinent historic preservation laws and regulations.

16 Feb 99

Date(s) of Examination

Wanda Beding

Archaeologist/Historian

A clear copy of (or an original of) the USGS Topographic Map of the project and the area surveyed must be attached. AK8111-1 (April 1992)

United States Department of Interior
Bureau of Land Management
Anchorage Field Office

Section 810 ANILCA Compliance/Clearance
Determination of Need

Casefile Number: AA-081686

Date: 2/23/99

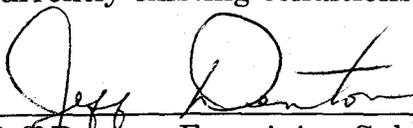
NEPA Document Number: AK-040-99-013

The proposed action is for the Bureau of Land Management to remove and dispose of abandoned mineral processing chemicals, lead acid batteries, drums containing petroleum products, a limited quantity of mercury contaminated soot and soil, and oil stained soil (less than one cubic yard). Those quantities not disclosed in the proposed action are dependent upon on site conditions at the time of cleanup effort and what may found on site in addition to known materials that may be readily and practically removable. A temporary bridge across Red Devil Creek would be constructed to move equipment, transfer vehicles, and haul removed materials off the site. It is suggested a culvert/fill bridge relative to Red Devil Creek may be constructed. The proposed action notes some sampling and analysis of soil, water and sediment will also take place as requested by EPA and ADEC. Specifics of these procedures are noted in a sampling plan that can be referenced in the case file but do not constitute a significant surface disturbance.

The location of the proposed actions is various locations associated with the Red Devil mercury mine located on abandoned mining claims in Sections 6 and 7, T. 19 S., R.44 W., Seward Meridian, Alaska.

The subject lands are validly selected by Native Corporation and topfiled upon by both Native Corporation and State of Alaska. Therefore, the subject lands do not meet the definition of Federal Public Lands under ANILCA sec. 102 (3) and do not fall under the authority of the Federal Subsistence Board and Subsistence Management Regulations for the Harvest of Fish and Wildlife on Federal Public Lands in Alaska.

Therefore, at this time, the proposed action will not significantly restrict subsistence uses, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit subsistence user access from currently existing conditions. No Further analysis is necessary at this time.


3/19/99
Jeff Denton, Examining Subsistence Specialist/Biologist