Alaska Department of Environmental Conservation

TMDL Alternative - Category 4b Demonstration

Red Devil Creek and Kuskokwim River (Red Devil), Alaska

Antimony, Arsenic, and Mercury

Division of Water
Water Quality Program

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Recommendation

Waterbody Names: Kuskokwim River (Red Devil) and Red Devil Creek

Category recommendation: 5 to 4b

Water Quality Standard Affected: Toxic and Other Deleterious Organic and Inorganic Substances

Designated Uses Affected: All

Pollutant: Metals – Antimony, Arsenic, Mercury

Executive Summary

Red Devil Mine was a mercury mine that ceased operations in 1971 and is now a contaminated site located on public lands managed by the Department of the Interior's Bureau of Land Management (BLM) in southwest Alaska. The mine site was established on the southwest bank of the Kuskokwim River, 250 miles west of Anchorage and approximately 2 miles from the village of Red Devil (population 23). Historical mining activities at the site included both underground and surface mining of mercury ore. During its operational years of 1939 to 1971, it was the largest mercury mine in Alaska. This document describes the data analysis and conclusions reached in evaluating remedial activities for Red Devil Creek and the Kuskokwim River (Red Devil)[1] for the 2024 Integrated Report (IR).

Table 1. Basic waterbody information

	Kuskokwim (Red Devil)	**Red Devil Creek**
Assessment Unit ID	AK_R_3050101_006_008	AK_R_3050101_009
Assessment Unit Name	Kuskokwim River (Red Devil)	Red Devil Creek (2)
Location description	Red Devil Mine, Alaska; HUC10	Red Devil Mine, Alaska; HUC10 1903050101
Total Water Size	702 miles	1.5 miles
Area of impairment	0.189 miles; 1,000 feet downriver and 100 feet upriver from the mouth of Red Devil Creek	1.5 miles
Time of impairment	Year round	Year round

Various cleanup activities have occurred since the mine was closed; however, contamination persists primarily in the high-concentration tailings. Red Devil Creek and Kuskokwim River (Red Devil), Table 1, were placed on the Section 303(d) impaired waters list in 2010 for non-

[1] Kuskokwim River (Red Devil) is the naming convention used in the original water quality impairment listing and is how this segment is described in EPA's ATTAINS database. For consistency, DEC is using the same naming convention in this document to identify the segment of the Kuskokwim River at the mouth of Red Devil Creek.

attainment of the criteria for toxic and other deleterious organic and inorganic substances, specifically antimony, arsenic, and mercury.

In 2018, a Remedial Investigation Supplement was conducted by BLM to address data gaps associated with soil, groundwater, and Kuskokwim River sediments that were identified as part of the development of site-wide remedial alternatives during the preparation of the 2016 Feasibility Study. In addition, a Baseline Ecological Risk Assessment Supplement was performed to assess potential risks to aquatic-dependent receptors that use the Kuskokwim River near and downstream from the Red Devil Mine.

In 2019, following the completion of the Remedial Investigation Supplement and 2017 Groundwater and Tailings Characterization, BLM prepared a Feasibility Study Supplement focused on groundwater and sediment in the Kuskokwim River.

Using these reports and site information, in 2020, BLM proposed remedial alternatives for site cleanup[2] and public noticed a preferred alternative in the draft Record of Decision (ROD). The Alaska Department of Environmental Conservation (DEC) provided comments to BLM on how the State's Applicable or Relevant and Appropriate Requirements (ARARs) could be achieved. BLM finalized and signed the ROD[3] on January 22, 2024.

Following the Environmental Protection Agency's required 6-elements for a Category 4b demonstration[4], this paper documents how the site is being remediated to meet water quality criteria. Because of these remedial actions, DEC recommends moving Red Devil Creek and the Kuskokwim River (Red Devil) from Category 5 to Category 4b.

1. Identification of segment and statement of problem causing the impairment

A. Segment description

Red Devil Creek is a small tributary of the Kuskokwim River and drains an area of approximately 1.08 square miles. The reach of the creek affected by the mine, extending to the delta in the Kuskokwim River is approximately 2,500 linear feet. Flow in Red Devil Creek measured at the Red Devil Mine ranges from 1 - 16 cubic feet per second depending on season and location.

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[2] U.S. Department of Interior, Bureau of Land Management (BLM). 2020. *Proposed Plan for the Red Devil Mine*. February.

[3] U.S. Department of Interior, Bureau of Land Management (BLM). 2024. *Record of Decision, Red Devil Mine, Alaska*. May 2022.

[4] USEPA (2006) *Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions.* October 12, 2006.

The Alaska Department of Fish and Game classifies Red Devil Creek as an anadromous fish stream; however, the creek does not support sustained populations of game or subsistence fish.

The Red Devil Mine is a historic abandoned mercury mine on the banks of the Kuskokwim River covering approximately 190 acres managed by BLM (Figure 1). The mine has gone through different iterations of operation between 1939 and 1971, when the mine closed.

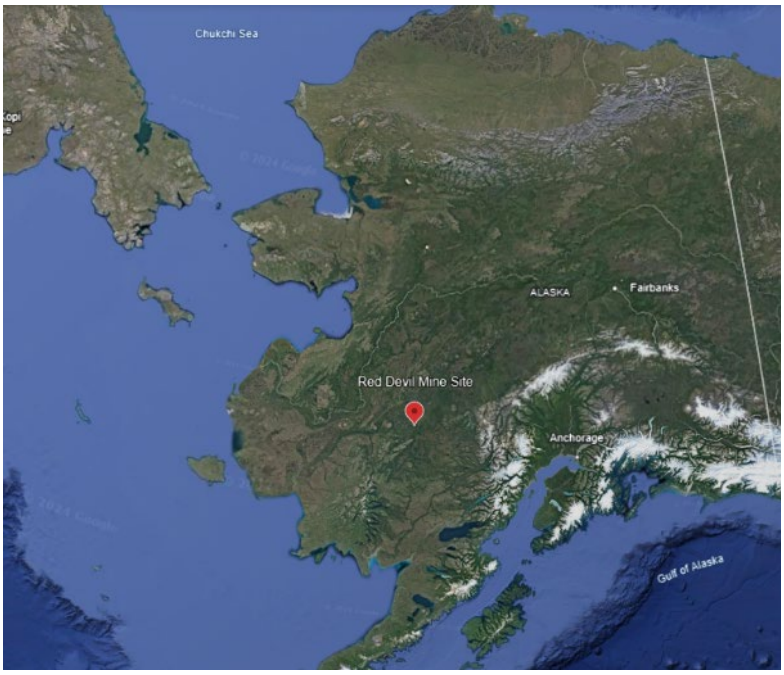

Figure 1. Location of the historic Red Devil Mine near the village of Red Devil, Alaska, approximately 253 miles east of Anchorage, Alaska. Google Earth image

In the early years of mining, a 40-ton rotary kiln was installed at the site for thermal processing of the mercury. Burned ore, referred to as tailings, and waste rock were deposited outside of the rotary furnace building into the drainage channel of Red Devil Creek. After an October 1954 fire, which destroyed a large portion of the mine surface structures and equipment, a more efficient modern mercury furnace was built on the southeast side of Red Devil Creek. Tailings and waste rock were bulldozed downslope and into Red Devil Creek to make space for additional processed tailings.

Extensive surface exploration and mining continued after 1956. Operations at this time included hydraulic sluicing, the washing of loose overburden through a sluice to recover ore. The waste material from the sluice operation was washed down a gully toward the Kuskokwim River. This resulted in the formation of the Dolly Sluice Area (Figure 2) delta on the Kuskokwim River at the base of the gully. Surface mining also included trenching, bulldozing, and pit excavations over the hillside northwest of the mine area.

Wastes generated by mining operations consist primarily of waste rock, surface mining spoils, and processed ore tailings. The waste rock includes the overburden material that resulted from surface mining processes and sub-ore-grade material generated during underground mining activities.

Most of the tailings and waste rock are situated in the approximately 12-acre Main Processing Area, located 1,000 feet from the Kuskokwim River. Red Devil Creek flows through the middle of the Main Processing Area to the Kuskokwim River (Figure 2). Tailings and waste rock extend from the Main Processing Area down the channel of Red Devil Creek and have formed a delta at the mouth of the creek on the shore of the Kuskokwim River (Figures 2 and 3).

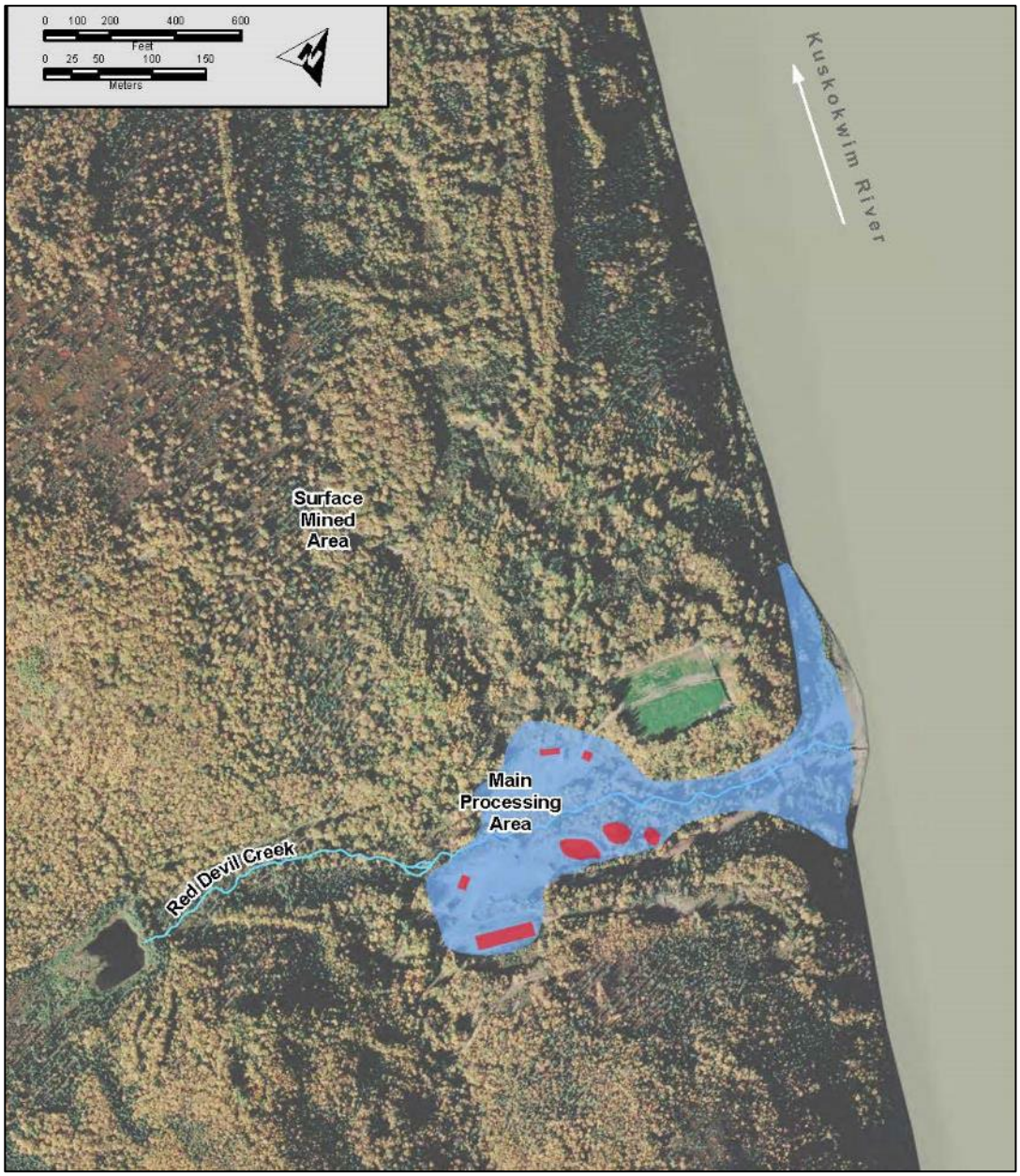

Figure 2. Map of site features at the historic Red Devil Mine.[5] The blue shading indicates areas impacted by tailings, waste rock and contaminated soil. The red shading shows ore processing waste source locations.

[5] U.S. Department of the Interior, Bureau of Land Management. 2020. *Proposed Plan, Red Devil Mine, Alaska.* Final.

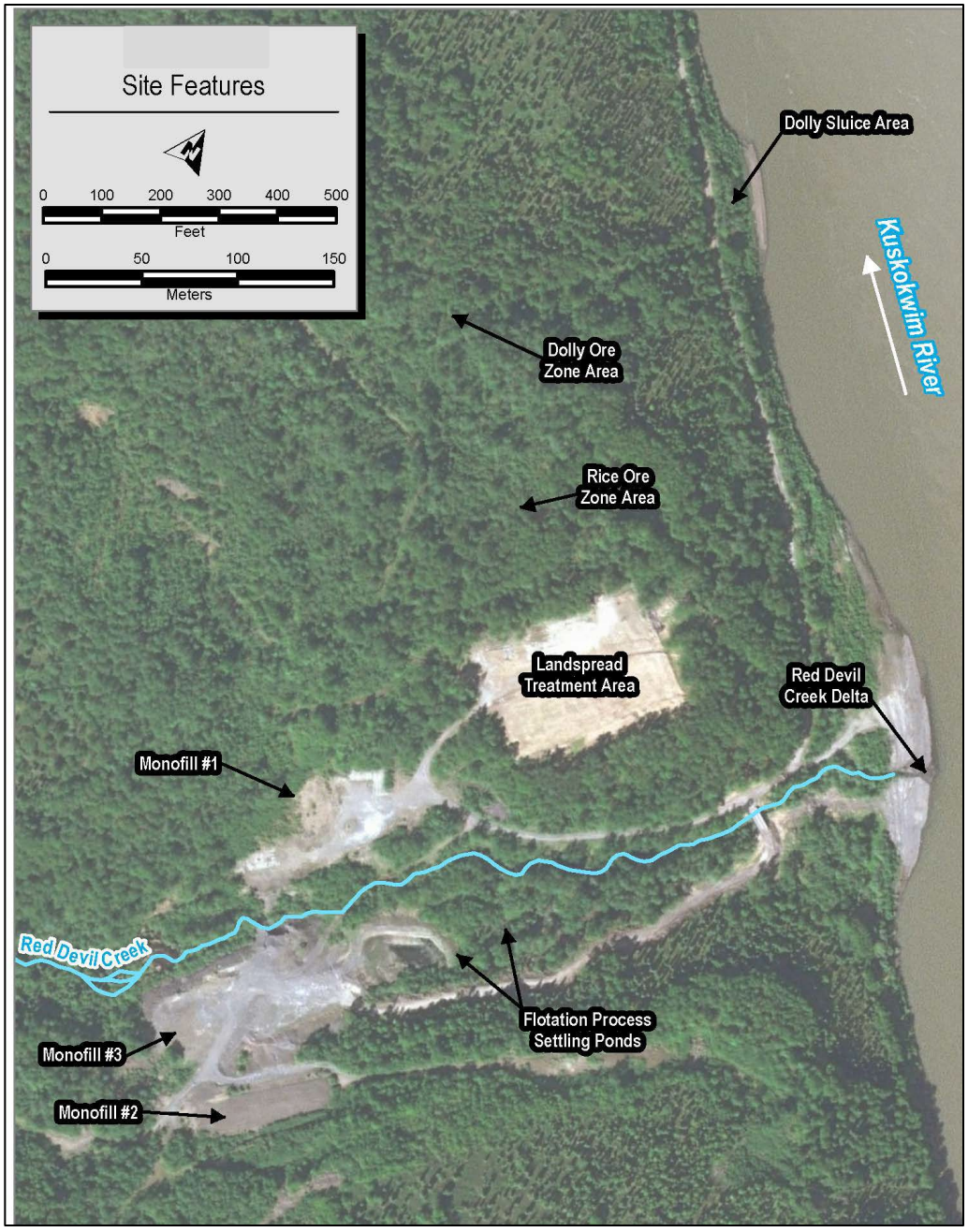

Figure 3. Map of site features at Red Devil Mine[6]

B. Impairment and pollutant causing impairment

Red Devil Creek and Kuskokwim River (Red Devil) were placed on the Section 303(d) list of impaired waters in 2010 for non-attainment of the Toxic and Other Deleterious Organic and Inorganic Substances criteria as described in Title 18, Chapter 70 of the Alaska Administrative Code (AAC) Section 70.020(1)(11) (Table 2). The metals of concern are antimony, arsenic, and mercury.

[6] U.S. Department of the Interior, Bureau of Land Management. 2020. *Proposed Plan, Red Devil Mine, Alaska.* Final.

Table 2. Alaska's Water Quality Standards at 18 AAC 70(1) for Toxic and Deleterious Organic and Inorganic Substances for fresh water uses[7]

Designated Use	Water Quality Criteria
(11) TOXIC AND OTHER DELETERIOUS ORGANIC AND INORGANIC SUBSTANCES, FOR FRESH WATER USES	
(A) Water Supply (i) drinking, culinary, and food processing	The concentration of substances in water may not exceed the numeric criteria for drinking water and human health for consumption of water and aquatic organisms shown in the *Alaska Water Quality Criteria Manual* (see note 5). Substances may not be introduced at concentrations that cause, or can reasonably be expected to cause, either singly or in combination, odor, taste, or other adverse effects on the use.
(A) Water Supply (ii) agriculture, including irrigation and stock watering	The concentration of substances in water may not exceed the numeric criteria for drinking and stockwater and irrigation water shown in the *Alaska Water Quality Criteria Manual* (see note 5). Substances may not be introduced at concentrations that cause, or can reasonably be expected to cause, either singly or in combination, odor, taste, or other adverse effects on the use.
(A) Water Supply (iii) aquaculture	Same as (11)(C).
(A) Water Supply (iv) industrial	Concentrations of substances that pose hazards to worker contact may not be present.
(B) Water Recreation (i) contact recreation	The concentration of substances in water may not exceed the numeric criteria for drinking water shown in the *Alaska Water Quality Criteria Manual* (see note 5). Substances may not be introduced at concentrations that cause, or can reasonably be expected to cause, either singly or in combination, odor, taste, or other adverse effects on the use.

[7] Alaska Department of Environmental Conservation (ADEC). 2022. 18 AAC 70.010 Water Quality Standards. Amended as of November 13, 2022.

(B) Water Recreation (ii) secondary recreation	Concentrations of substances that pose hazards to incidental human contact may not be present.
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	The concentration of substances in water may not exceed the numeric criteria for aquatic life for fresh water and human health for consumption of aquatic organisms only shown in the *Alaska Water Quality Criteria Manual* (see note 5), or any chronic and acute criteria established in this chapter, for a toxic pollutant of concern to protect sensitive and biologically important life stages of resident species of this state. There may be no concentrations of toxic substances in water or in shoreline or bottom sediments, that, singly or in combination, cause, or reasonably can be expected to cause, adverse effects on aquatic life or produce undesirable or nuisance aquatic life, except as authorized by this chapter. Substances may not be present in concentrations that individually or in combination impart undesirable odor or taste to fish or other aquatic organisms, as determined by either bioassay or organoleptic tests.

C. Sources of pollutant causing impairment

The site contains an estimated total of 210,000 cubic yards of tailings and waste rock, mainly located in the Main Processing Area and the delta formed at the mouth of Red Devil Creek in the Kuskokwim River. These tailings and waste rock are likely mixed with petroleum-related contaminants from the former above ground fuel storage tanks and associated pipelines. Moreover, contaminated native soils and creek sediment are also present.

Adjacent to the Main Processing Area lies the Surface Mined Area, situated in the northwest part of the site. This area has undergone surface exploration and mining activities, as well as underground mining. It features exposed ore-bearing bedrock, closed mine shafts, and several areas where water was used to wash away loose overburden for surface exploration and mining.

The groundwater within the Main Processing Area contains concentrations of Contaminants of Concern (COCs) (antimony, arsenic, and mercury) that exceed the cleanup levels established by DEC. The primary cause of groundwater contamination in this area is the leaching of COCs from the tailings and waste rock. Hydrogeologic studies conducted in the Surface Mined Area and other regions outside the Main Processing Area suggest that naturally occurring mineralization contributes to the elevated levels of COCs observed in groundwater across the entire site.

2. Description of pollution controls and how they will achieve Water Quality Standards

A. Water quality target

Cleanup goals for tailings, waste rock, soil, Red Devil Creek sediment, and groundwater have been established based on Alaska Administrative Code (AAC), Title 18, Chapter 75[8]; cleanup goals for surface waters have been established based on 18 AAC 70. Target cleanup levels, also known as remedial goals, are established by calculating what levels would not pose an unacceptably high risk of health impacts, or by calculating the "background concentration"—the levels that naturally occur in and around the site.

BLM determined that for tailings, waste rock, soil, and Red Devil Creek sediments, cleanup to background would be the most appropriate target for antimony, arsenic, and mercury. For COCs in Red Devil Creek sediments, target cleanup levels are based on the soil target cleanup levels because the sediment matrix in the creek bed is primarily composed of tailings, waste rock, and eroded soil from upland portions of the site.

For Kuskokwim River sediments, the arsenic target cleanup level is based on a site-specific, risk-based cleanup level calculation.

B. Point and nonpoint source loadings that when implemented will achieve Water Quality Standards

The Selected Remedy described in BLM's ROD[9] for the Red Devil Mine focuses on active remedial work on the tailings and waste rock, the sediment bed of Red Devil Creek, and nearshore sediments in the Kuskokwim River. BLM is prioritizing actions based on where the largest volume and highest concentration of contamination exists. These actions reduce exposure of humans and wildlife to antimony, arsenic, and mercury, as well as reducing the potential transport of contaminated materials into and through the Kuskokwim River.

Because arsenic poses higher risks than other contaminants, and the extent of arsenic contamination encompasses the areas where other contaminants of concern (antimony and mercury) exist, arsenic is the primary contaminant of concern used for remedial planning purposes. The remedial cleanup goals for arsenic will also be effective in addressing the other contaminants of concern.

C. Description of controls to achieve Water Quality Standards

Contamination resulting from releases of hazardous substances at and from the Red Devil Mine presents an unacceptable risk to human health and the environment. The response action

[8] ADEC. 2018b (27 October). *Oil and Other Hazardous Substances Pollution Control*. Division of Spill Prevention and Response, Contaminated Sites Program. 18 AAC 75.

[9] U.S. Department of Interior, Bureau of Land Management (BLM). 2024. *Record of Decision, Red Devil Mine, Alaska*. May 2022.

selected in the ROD is necessary to protect public health and the environment from risks posed by actual and threatened releases of hazardous substances into the environment. The Selected Remedy is Alternative SW3C[10], which incorporates Feasibility Study Alternative KR3 and components of Alternative KR5A. The ROD describes the Selected Remedy in detail and should be referenced for additional information.

The ROD includes excavation of contaminated materials from Red Devil Creek and downstream areas of the Kuskokwim River, consolidation and safe storage of evacuated materials, long-term maintenance of that storage facility, and long-term monitoring of groundwater and river sediments.

The Selected Remedy includes the following elements:

- Excavating contaminated tailings/waste rock, soil, and sediments in Red Devil Creek at the site, including Monofill #2;
- Excavating nearshore sediments located downstream of the Red Devil Creek delta;
- Treatment using solidification of tailings/waste rock in the Main Processing Area and Monofill #2 that fail the toxicity characteristic leaching procedure test for arsenic;
- Consolidating appropriate excavated materials into an engineered repository and disposing of materials not appropriate for the repository at an appropriate facility;
- Long-term maintenance of the engineered repository and monitoring downgradient groundwater;
- Capping exposed highly mineralized areas in the Surface Mined Area;
- Long-term monitoring of groundwater in the Red Devil Creek watershed;
- Monitoring of Kuskokwim River sediments to verify remedy effectiveness; and
- Installing exclusion fencing to protect wildlife and implementing restrictions on public access and future use of the site area.

The Selected Remedy will provide long-term, effective isolation and stabilization of contaminated materials and reduce actual and potential human and ecological exposure to tailings, waste rock, and soil containing arsenic, antimony, mercury, and other heavy metals at concentrations that exceed remedial goals. Human exposure to hazardous substances within the Main Processing Area will be reduced by using Institutional Controls, removing, and consolidating contaminated materials in the on-site repository, and preventing or minimizing migration of COCs by using stormwater controls and recontouring excavated areas (Figure 4).

[10] See pages 49-54 in the Record of Decision for a description of Alternative SW3 and sub-alternative SW3C.

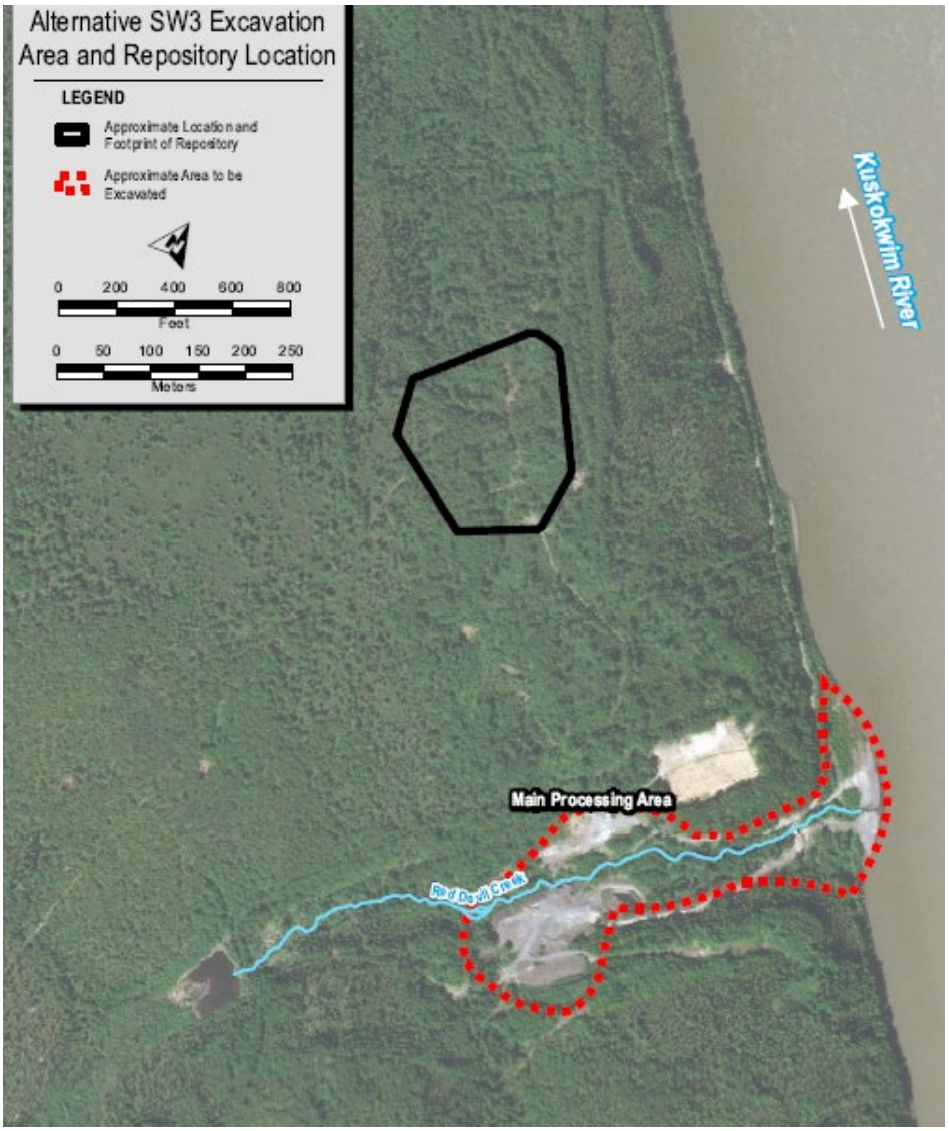

Figure 4. Selected remedy SW3[11] excavation area and repository location

Target Cleanup Levels

Target cleanup levels, also known as remedial goals, are established by calculating what levels would not pose an unacceptably high risk of health impacts, or by calculating the "background concentration"—the levels that naturally occur in and around the site. For carcinogenic compounds, the cleanup level is typically set at a range of one in 10,000 (1×10^{-4}) to one in 1,000,000 (1×10^{-6}) for excess cancer risk[10]. Many of the metals at Red Devil Mine occur naturally and, in some cases, background concentrations of these metals are higher than risk-based cleanup levels. It is not practical to clean up below naturally occurring levels.

[11] U.S. Department of Interior, Bureau of Land Management (BLM). 2024. *Record of Decision, Red Devil Mine, Alaska*. May 2022.

BLM determined that for tailings, waste rock, soil, and Red Devil Creek sediments at the Red Devil Mine, cleanup to naturally occurring background levels would be the most appropriate target for antimony, arsenic, and mercury. For contaminants of concern in Red Devil Creek sediments, the target cleanup levels are based on the soil target cleanup levels because the sediment matrix in the creek bed is primarily composed of tailings, waste rock, and eroded soil from upland portions of the site.

For Kuskokwim River sediments, the arsenic target cleanup level is based on a site-specific, risk-based cleanup level calculation.

Groundwater COC concentrations in the area near Red Devil Creek are strongly influenced by the presence of tailings and waste rock. Under the Selected Remedy described in BLM ROD for Red Dog Mine, tailings and waste rock would be excavated.

Actual concentrations of antimony, arsenic, and mercury in groundwater after excavation cannot presently be predicted with confidence. However, it is reasonable to assume that concentrations of COCs in groundwater after excavation would be similar to those observed in bedrock in the upper elevations of the watershed. BLM will continue to monitor the site after excavation work.

D. Description of requirements for implementing controls

BLM is the lead agency for response activities on public land at the Red Devil Mine. DEC is the lead state regulatory agency. Cleanup monies are provided by the U.S. Department of Interior and BLM.

The remedial action for the Red Devil Mine is intended to protect human health and the environment from risks associated with exposure to elevated levels of site-related contaminants in tailings and waste rock, contaminated soil, groundwater, sediments in Red Devil Creek, and nearshore sediments in the Kuskokwim River. BLM expects Alternative SW3C to satisfy the following statutory requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121(b): (1) be protective of human health and the environment; (2) comply with Applicable or Relevant and Appropriate Requirements; (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element of the remedy.

Specific Remedial Action Objectives for tailings/waste rock, soil, Red Devil Creek sediment, and groundwater include:

- Prevent or reduce human exposure (through ingestion or dermal contact) to COCs in tailings and waste rock, and soils in the Main Processing Area, Red Devil Creek sediment, and Kuskokwim River sediment at concentrations above remedial goals;
- Prevent or reduce human exposure (through inhalation) to COCs in dust from tailings/waste rock, and soil above remedial goals;

- Prevent or reduce human exposure (through ingestion) to COCs in fish in Red Devil Creek, and mammals and birds that may inhabit the Main Processing Area to acceptable levels;
- Prevent or reduce exposures to plants, fauna, and terrestrial wildlife in the Main Processing Area; aquatic-dependent wildlife that feed in or near Red Devil Creek; fish in Red Devil Creek; and sediment dwelling organisms from COCs in tailings and waste rock, soil in the Main Processing Area, and Red Devil Creek sediment at concentrations above remedial goals;
- Prevent or reduce migration of COCs to surface water from erosion of tailings/waste rock;
- Prevent or reduce leaching of COCs from tailings/waste rock to groundwater; and
- Prevent or reduce human exposure (through ingestion, inhalation, or dermal contact) to antimony, arsenic, and mercury in groundwater at concentrations above remedial goals.

BLM developed the following Remedial Action Objectives for nearshore Kuskokwim River sediment and materials withing the lower delta:

- Reduce future human exposure (through dermal contact and incidental ingestion) to arsenic in materials withing the lower delta and nearshore Kuskokwim River sediments at concentrations above remedial goals; and
- Reduce potential migration of materials withing the lower delta to downriver locations where human exposure to nearshore sediments at concentrations above remedial goals could occur.

Key guiding regulatory documents include[12]:

Ecology and Environment, Inc. (E & E). 2014. *Final Remedial Investigation Report, Red Devil Mine, Alaska*. Prepared for the U.S. Department of the Interior, Bureau of Land Management, Anchorage, Alaska. January.

_____. 2016a. *Final Feasibility Study, Red Devil Mine, Alaska*. Prepared for the U.S. Department of Interior, Bureau of Land Management, Anchorage, Alaska. Seattle, Washington. March.

_____. 2018. *Final Soil, Groundwater, Surface Water, and Kuskokwim River Sediment Characterization, Supplement to Remedial Investigation, Red Devil Mine, Alaska* report. Prepared for the U.S. Department of the Interior, Bureau of Land Management, Anchorage, Alaska. Seattle, Washington. April.

_____. 2019. *Final Red Devil Mine Groundwater and Surface Water Report, Red Devil, Alaska*. Prepared for the U.S. Department of the Interior, Bureau of Land Management, Anchorage, Alaska. Seattle, Washington. June.

_____. 2019. *Final Feasibility Study Supplement Red Devil Mine, Alaska.* Prepared for the U.S. Department of Interior, Bureau of Land Management, Anchorage, Alaska. August.

[12] See BLM site information Administrative Record for additional information and to view documents: https://www.blm.gov/programs/aml-environmental-cleanup/aml/state-information/alaska/red-devil-mine.

_____. 2020. *Proposed Plan for the Red Devil Mine*. Prepared for the U.S. Department of Interior, Bureau of Land Management, Anchorage, Alaska, Seattle, Washington. March.

3. Projection of the time when Water Quality Standards will be met

The overall cleanup objectives at the Red Devil Mine site are to restore polluted areas to a level that is protective of human health and the environment, and to comply with applicable or relevant and appropriate requirements. The restoration will be complete when cleanup levels for site-related contaminants in tailings and waste rock, contaminated soil, groundwater, sediments in Red Devil Creek, and nearshore sediments in the Kuskokwim River are met. Red Devil Mine site cleanup is expected to take 30 years, with periodic analysis to look for possible problems and make corrective actions as needed. BLM will share monitoring data with DEC and will formally review the data every five years, specifically to evaluate the effectiveness of the remediation plan. If the Remedial Action Objectives are not being achieved by the preferred alternative during these 5-year reviews, BLM will re-evaluate the Selected Remedy in consultation with DEC and modify as needed.

4. Schedule for implementing pollution controls

Environmental investigations and response actions have been conducted at the Red Devil Mine site since the early 1970s and continue to present day. The time necessary to implement each of the selected alternative actions is expected to occur over several construction seasons with ongoing site maintenance and monitoring occurring long-term. The DEC Contaminated Sites database[13] will continue to provide an up-to-date chronological list of site activities and documents.

5. Monitoring plan to track effectiveness of pollution controls

In general, all monitoring and/or sampling activities are designed to evaluate the performance of the remediation activities and recovery of the site. Post-implementation monitoring and sampling will be compared to baseline results to verify effectiveness of remedial actions. It includes monitoring and maintenance of the on-site repository and monitoring of groundwater and Kuskokwim River sediments to verify remedy effectiveness. Long-term monitoring data will be compiled and formally reviewed every five years in coordination with DEC and the Department of Natural Resources to ensure they accurately reflect watershed conditions.

Groundwater monitoring data from wells installed uphill from the tailings indicate that concentrations are elevated due to the presence of natural mineralization of bedrock. Therefore, remedial goals established for groundwater reflect the expected influence of natural

[13] See https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/Search

mineralization of bedrock on groundwater in the area where tailings are currently found. BLM will develop long-term groundwater quality objectives based on post-remediation conditions and background water quality data.

Because the Selected Remedy will result in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure[14], BLM will conduct a review of the Performance Remedy no less than every five years after initiation of the Selected Remedy. This will ensure that the remedy remains protective of human health and the environment.

6. Commitment to revise pollution controls, as necessary

The final ROD for the Red Devil Mine site is based on results of the Remedial Investigation (RI), Feasibility Study (FS), and related supplemental studies for the Red Devil Mine. The Selected Remedy for the site-wide remediation of contaminated tailings, waste rock, soil, groundwater, and creek and river sediment outlines BLM's ROD for Red Devil Creek and the Kuskokwim River (Red Devil) in accordance with the Administrative Record for the site. BLM has studied and intends to implement a remedial action to respond to contamination at the Red Devil Mine under its delegated CERCLA authority, using the CERLCA process.

As the lead agency under CERCLA for the Red Devil Mine cleanup, BLM is authorized to plan and implement response actions to identify the existence of releases and threatened releases of hazardous substances, characterize the nature and extent of such releases and threatened releases, and undertake any other response actions that BLM deems necessary to protect public health or welfare or the environment from risks associated with such releases or threatened releases.

The response actions meet DEC requirements for cleanup of antimony, arsenic, and mercury, for contaminated sites. BLM commits to reviewing site control effectiveness every five years and sharing the information with DEC. BLM will modify site activities as needed based on the 5-year review. DEC will continue to be involved in the cleanup plan, long-term monitoring plans, construction and monitoring of the repository, and periodic reviews throughout the life of the project. DEC will work with BLM on revising the pollution controls, as necessary, if progress towards meeting water quality standards is not being shown. Any changes will be documented on the DEC Contaminated Sites database accessible to the public via the internet. Additionally, DEC will update the Red Devil Creek and Kuskokwim River (Red Devil) records, as needed, in EPA's Assessment, Total Maximum Daily Load Tracking and Implementation System (ATTAINS) database.

[14] Pursuant to CERCLA Section 121(c) and National Oil and Hazardous Substances Pollution Contingency Plan Section 300.430(f)(4)(ii)