



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Bulch" Otter, Governor
Curt Fransen, Director

March 28, 2012

Mr. Ken Marcy
U.S. Environmental Protection Agency
12928 SW 276th Street
Vashon, WA 98070

RE: Abbreviated Preliminary Assessment Report for the Ajax Mine, Idaho County, Idaho.

Dear Mr. Marcy:

Attached is an Abbreviated Preliminary Assessment (APA) for the Ajax Mine near Dixie, Idaho. The Idaho Department of Environmental Quality (DEQ) was unable to access the property after various attempts to contact the property owner were unsuccessful.

The Ajax Mine was investigated by the Idaho Geological Survey (IGS) on July 13, 1999. IGS reported the following about the site conditions:

The site has a caved shaft with two large waste dumps, several prospect pits, and three collapsed log structures. The pit of the shaft is about 15-20 feet in diameter and 10 feet deep. One of the waste dumps for the shaft extends southeast from the shaft to the access road. This dump is 80 feet long, 20 feet wide and 20 feet thick, and has been partly removed by road construction. Some of the dump material may have been used as road metal. Adjacent to the southwest side of the pit is a large conical waste dump approximately 35 feet across at the bottom and 20 feet thick. Beams and timbers of a collapsed structure, probably a head frame, are on the dump and the side of the pit.

East of the shaft and across the access road are several shallow prospect pits. These pits are typically about 15 feet in diameter and 10 feet deep. A number of trenches scattered around the area were dug to explore for the vein. A small, recently constructed pond, which is lined with a blue tarpaulin, is several hundred feet south of the shaft and across the road. The pond is behind an earth-filled dam. A small amount of water has accumulated in the pond. The disturbed area covers about 7-10 acres.

No samples were collected from the site during the IGS field visit.

The site inspection by IGS involving direct observations confirmed that contaminants of concern including hazardous materials and petroleum products were not reported in concentrations that present a threat to human health or the environment. No surface water, ground water or airborne pathways were detected.

Mr. Ken Marcy
March 28, 2012
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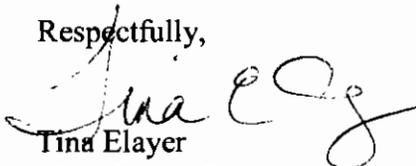
As a result of the above information, **DEQ is recommending the Ajax Mine site be designated as No Remedial Action Planned (NRAP).**

A link to DEQ's Ajax Mine APA can also be found on DEQ's Mining Preliminary Assessment Web page at:

<http://www.deq.idaho.gov/waste-mgmt-remediation/remediation-activities/mining-preliminary-assessments.aspx>

If you have any questions about this site, the report, or DEQ's recommendations, please do not hesitate to call me at (208) 373-0563.

Respectfully,


Tina Elayer
Mine Waste Specialist

attachment

cc: Clint Hughes – USFS
Scott Sanner – BLM
Ajax Mine File

ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Ajax Mine near Dixie, Idaho. This document provides the rationale for the determination of No Remedial Action Planned (NRAP) and that no additional analysis or site investigation is necessary for the Ajax Mine. The information to produce this document was taken from the 2003 Idaho Geological Survey (IGS) report. A map generated during desktop research is attached.

Preparer: Tina Elayer **Date:** 2/22/12
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
(208) 373-0563
tina.elayer@deq.idaho.gov

Site Name: Ajax Mine

Previous Names (aka): Ajax, Mountain Boy, Monitor, Midas

Site Owner: Coppernoll Cutting, Inc.

Address: PO Box 107
Dixie, ID 83525

Site Location: From IGS 2003:

The Ajax Mine is on the east side of Fourth of July Creek. Access from FS Road 222 is on FS Road 222C1 north about ¾ mile to a new access road that goes west to the mine. FS Road 222C is about 50 feet on the opposite side of Fourth of July Creek from the site. The mine is on patented claims surrounded by National Forest land.

Township 26 North, Range 8 East, Section 28

Latitude: 45.56306°N **Longitude:** -115.46583°W

Describe the release (or potential release) and its probable nature:

DEQ was unable to access the property after various attempts to contact the property owner were unsuccessful.

The Ajax Mine was investigated by IGS on July 13, 1999. IGS reported the following about the site conditions:

The site has a caved shaft with two large waste dumps, several prospect pits, and three collapsed log structures. The pit of the shaft is about 15-20 feet in diameter and 10 feet deep. One of the waste dumps for the shaft extends southeast from the shaft to the access road. This dump is 80 feet long, 20 feet wide and 20 feet thick, and has been partly removed by road construction. Some of the dump material may have been used as road metal. Adjacent to the southwest side of the pit is a large conical waste dump approximately 35 feet across at the bottom and 20 feet thick. Beams and timbers of a collapsed structure, probably a head frame, are on the dump and the side of the pit.

East of the shaft and across the access road are several shallow prospect pits. These pits are typically about 15 feet in diameter and 10 feet deep. A number of trenches scattered around the area were dug to explore for the vein. A small, recently constructed pond, which is lined with a blue tarpaulin, is several hundred feet south of the shaft and across the road. The pond is behind an earth-filled dam. A small amount of water has accumulated in the pond. The disturbed area covers about 7-10 acres.

No samples were collected from the site during the IGS field visit.

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.

	YES	NO
1. Is the site currently in CERCLIS or an “alias” of another site?		x
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		x
3. Are the hazardous substances that may be released from the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		x
4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		x
5. Is there sufficient documentation to demonstrate that there is no potential for a release that constitutes risk to human or ecological receptors? (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)?	x	

Please explain all “yes” answer(s):

A site inspection by IGS involving direct observations confirmed that contaminants of concern including hazardous materials and petroleum products were not reported in concentrations that present a threat to human health or the environment. No surface water, ground water or airborne pathways were detected.

Part 2 - Initial Site Evaluation

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any of questions 1, 2, or 3, proceed directly to Part 3.	YES	NO
1. Does the site have a release or a potential to release?		x
2. Does the site have uncontained sources containing CERCLA eligible substances?		x
3. Does the site have documented on-site, adjacent, or nearby targets?		x

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.	YES	NO
4. Does documentation indicate that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		
5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?		
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (e.g., targets within one mile)?		
7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?		

Notes:

It is unlikely any human health risks or ecological health risks are associated with this mine site. No surface water, ground water or airborne pathways were reported by IGS.

During the site assessment, DEQ used references from several different documents including U.S. Geological Survey (USGS) maps, county tax rolls, and historical reports that have spelled numerous claim names, town sites, and/or geographic features differently from one and another. DEQ’s use of the different spellings is to remain in context with the reference used for each given section of text or written in this report.

Exhibit 1 – Site Assessment Decision Guidelines for a Site

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. The assessor should use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below.

Suspected/Documented Site Conditions		APA	Full PA	PA/SI	SI
1. Releases or potential to release are not documented at the site. YES		Yes			
2. Uncontained sources with CERCLA-eligible substances have not been documented as being present on the site. (i.e., they do exist at site) YES		Yes			
3. On-site, adjacent, or nearby receptors are not present. YES		Yes			
4. There is no documentation or observations made leading to the conclusion that a sensitive receptor is present or may have been exposed (e.g., drinking water system user inside four mile TDL). YES	Option 1: APA	Yes			
5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site. NO	Option 2: Full PA or PA/SI	No			
6. There is an apparent release at the site with no documentation of targets, but there are targets on site or immediately adjacent to the site. NO	Option 1: APA SI	No			
	Option 2: PA/SI	No			
7. There is an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within one mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site. YES		Yes			
8. There are: no indications of a hazardous substance release; uncontained sources containing CERCLA hazardous substances; but there is a potential to release with targets present on site or in proximity to the site. NO		Yes			

Part 3 - DEQ Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was "no," then an APA may be performed and the "NRAP" box below should be checked. Additionally, if the answer to question 4 in Part 2 is "yes," then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the "Lower Priority SI" or "Higher Priority SI" box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

<input checked="" type="checkbox"/>	No Remedial Action Planned (NRAP)	Defer to NRC
<input type="checkbox"/>	Higher Priority SI	Refer to Removal Program
<input type="checkbox"/>	Lower Priority SI	Site is being addressed as part of another CERCLIS site
<input type="checkbox"/>	Defer to RCRA Subtitle C	Other:

DEQ Reviewer:


Tina Elayer

3/28/12
Date

Please Explain the Rationale for Your Decision:

A site inspection by IGS involving direct observations confirmed that contaminants of concern including hazardous materials and petroleum products were not reported in concentrations that present a threat to human health or the environment. No surface water, ground water or airborne pathways were detected.

As a result of the information contained in this APA, DEQ recommends the property status of the Ajax Mine be designated as No Remedial Action Planned (NRAP).

Notes:

The italicized text below was taken directly from the 2003 IGS report.

Site Description: The site has a caved shaft with two large waste dumps, several prospect pits, and three collapsed log structures. The pit of the shaft is about 15-20 feet in diameter and 10 feet deep. One of the waste dumps for the shaft extends southeast from the shaft to the access road. This dump is 80 feet long, 20 feet wide and 20 feet thick, and has been partly removed by road construction. Some of the dump material may have been used as road metal. Adjacent to the southwest side of the pit is a large conical waste dump approximately 35 feet across at the bottom and 20 feet thick. Beams and timbers of a collapsed structure, probably a head frame, are on the dump and the side of the pit.

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Geologic Features: *The Ajax Mine is near the contact between the quartzite and schist unit of the Middle or Early Proterozoic Syringa metamorphic sequence and Cretaceous biotite granodiorite of the Idaho batholith (Lewis and others, 1990, 1993).*

History: *The Ajax lode mine was one of Dixie's best producers. It was located 3/4 mile northwest of Dixie, in Midas Gulch on a ridge between Fourth of July and Boulder Creeks. The property included three claims patented in March of 1901: Ajax, Monitor, and Mountain Boy. The vein lay in a shear zone in granitic country rock, and it varied in width from a few inches to 11', making it one of the widest in the district. The vein struck north 40 degrees west and dipped 80 degrees north. Within 50-60' of the surface, the ore was free milling, but heavy sulfides were encountered below that level, and no ore was mined below 200'. An andesite dike that outcropped west of the shaft was encountered during the workings.*

Sam Dillinger reportedly found the Ajax lode in the 1860s, getting assays of \$8 per ton from the outcroppings, but he was not interested in the property. Thomas Pritchard and William Yolen Williams located the Mountain Boy in 1896. James P. Turner, Dixie's first postmaster, developed the property for some six years, packing the ore on mules about four miles to Dillinger's arrastra on Rhett Creek for removal of the gold. Turner sold the property in 1900 for \$13,500 to John A.

Finch and A. B. Campbell of Spokane. They had apparently been leasing the mine, as in December of 1899 Jesse Couiter was developing the Ajax for them. In 1899 Thomas Bollman, Dixie merchant, reported that the leading company in Dixie was the Midas Gold Mining Company, managed by William Springer, which was employing 17 or 18 men. By 1900, approximately 200 tons had been stoped out and milled, and the vein was said to be 11' wide. In the late 1890s the two-stamp steam-powered mill on the Ajax averaged \$22 per ton, all free-milling gold. Finch and Campbell spent approximately \$75,000 developing the Ajax. They installed hoisting machinery, and at the end of 1901 they built a steam-powered ten-stamp mill. This mill (or the earlier two-stamp mill) was built by Green W. Dalias, a California miner who fought in the 1877 conflict with the Nez Perce. The stamps reportedly could handle 40 tons of ore per day, and in one 30-day period the company netted about \$20,000. When the mill started operation in December of 1901, the company was employing 21 men underground to stope out the ore. Until reaching the sulfide ores, the company stoped out free-milling gold ore with average values of over \$22 per ton. Each five tons of the sulfide ore yielded one ton of concentrates assaying \$80-90 per

ton, and the concentrates were shipped to a smelter. The mine was developed by a 365' inclined shaft going about 300' below the surface, plus drifts and crosscut tunnels from each level totaling about 550', at times with three shifts of workers. Finch and Campbell became discouraged by the difficulty of treating the sulfide pegmatite ores, which at depth were too refractory for efficient milling and amalgamation. They considered installing a set of Huntington mills in the summer of 1902, to lessen the loss of values in the slimes, but they apparently did not do so. Cyanidation was tried as a treatment method but was not successful, according to one report; another version (Thomson and Ballard 1924) says the former owners reported that cyanidation of the mill concentrates was successful. In the fall of 1903, the owners pulled the pumps. Eventually they sold the mill to the American Eagle Company of Elk City and abandoned the property. According to Sweeney (1982), the mine closed because of litigation due to a disagreement over claim ownership of the Ajax properties. A little work continued to be done on the mine over the next few years. In 1904, a cyanide run of 80 tons of concentrates on the Ajax dump resulted in a saving of \$82 per ton. In 1909, the average value of ore from a 16' vein on the Ajax was \$13 per ton.

The Ajax was a large employer for the few years it operated, keeping as many as 100 men busy. A number of long-time Dixie residents, including Louis Larson and George Trader, worked at the Ajax, but many of the employees were transient laborers. The town of Midas, or Midasville, was started when the Midas Gold Mining Company began developing the Ajax mine. The town had a population of 200-300, making it larger than Dixie for a time, but it declined immediately when the mine closed in 1903. The community of Midas boasted a large boarding house and a general merchandise store. Besides cabins, many wall tents also housed company employees.

The Ajax mine was briefly reopened in the 1930s. In 1931 a small amount of gold ore was produced, and in 1934 the mine produced a concentrate assaying \$22 a ton in gold. Mrs. Sophia Stantial of Los Angeles owned the Monitor claim from at least 1931 until 1937. In the 1940s, a caretaker lived at the Ajax mine. By 1939, the mine buildings and equipment were in ruins and the workings had caved in. The ten-stamp mill was operated by steam, fueled by wood, and the Ajax woodyard is still evident today. By 1981, the only building still standing at the mine was a log stable.

Structures: There are three collapsed buildings at the site. Two are near the shaft and one is along Fourth of July Creek south of the shaft. Near the shaft are a partly collapsed log and a completely collapsed building. The lower cabin along the creek is also nearly collapsed. The collapsed head frame at the shaft is the only other structure at the site.

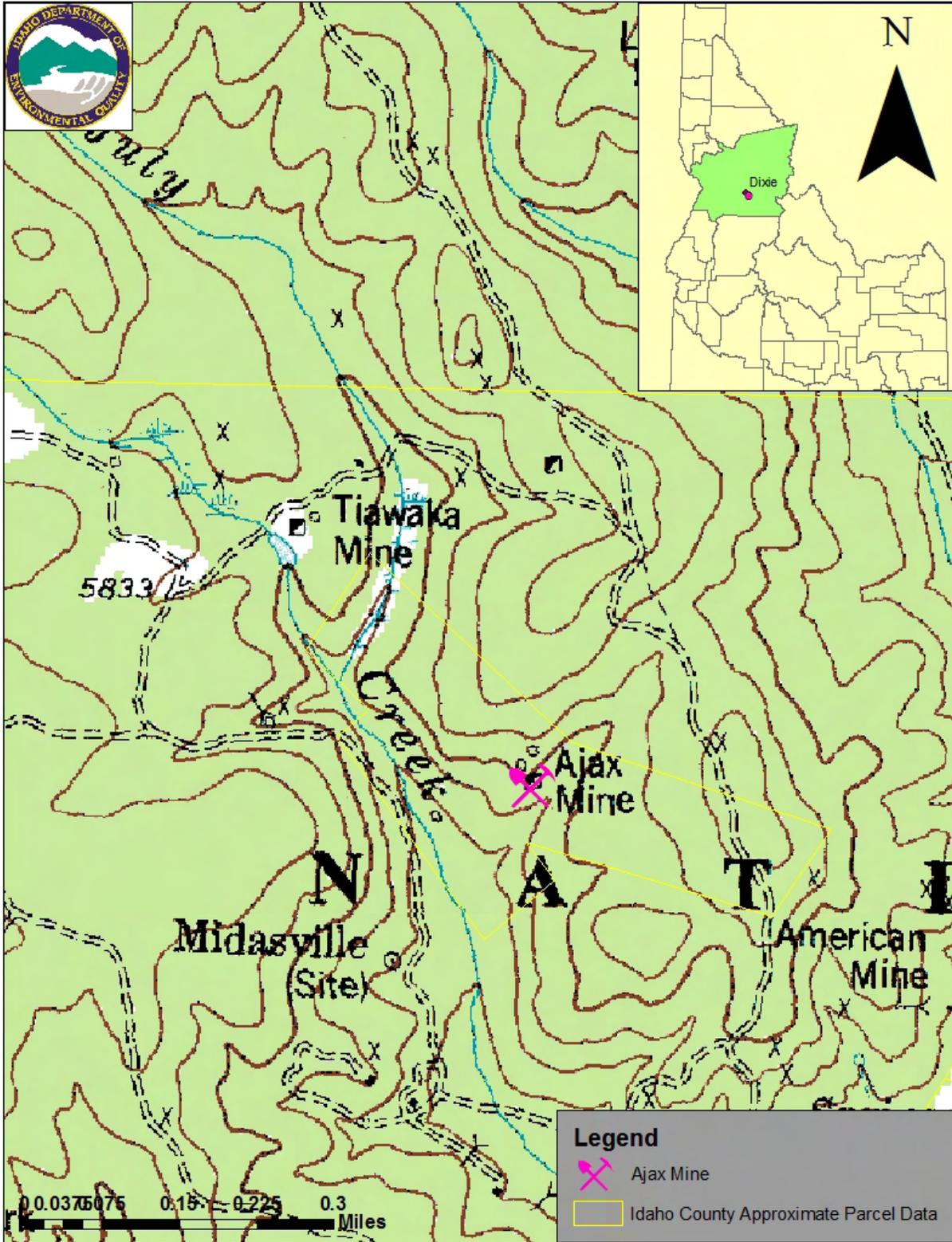
Safety: There are no significant safety hazards at the site.

Reference:

IGS (Idaho Geological Survey). Bennett, Earl H., Kauffman, John, and Mitchell, Victoria E. 2003. *Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Forest Service Lands (Region 1), Nez Perce National Forest: Volume II, Dixie Area, Idaho County, Idaho.*

Attachment:

Map



**Location of the Ajax Mine in Idaho County, Idaho
(Map Source: USGS 24 k Quads)**