



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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

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

March 28, 2012

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

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

Dear Mr. Marcy:

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

The Comstock Mine was investigated by the Idaho Geological Survey (IGS) in 1999. IGS reported collapsed buildings, a maintained cabin, a caved and dry adit, a bulldozed waste dump, and mill ruins. A soil sample was collected from IGS for analysis from the tailings pile below the mill.

The soil sample collected from the tailings had elevated levels of cadmium, copper, and lead in the element screen. In the TCLP for metals test, lead was leaching from the sample. These values are not remarkable in highly mineralized areas and it is unlikely any human health risks or ecological health risks are associated with this area.

DEQ recommends the property owners be advised of the leachable lead and elevated metals. Any surface land disturbances on the property should be seeded and stabilized to insure no pathways are produced relative to human health and environmental issues. A copy of this report will be sent to the landowners at their last known addresses on record.

As a result of the above information, **DEQ is recommending the Comstock Mine site be designated as No Remedial Action Planned (NRAP).**

The one physical hazard remaining on site at the time of the IGS visit was the standing portion of the mill building which was dilapidated and could easily collapse. There were abundant nails protruding from the boards and timbers of the collapsed structures. As it is open to recreationists, DEQ recommends the landowners (U.S. Forest Service and private) either work to remove the structure or secure the area.

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A link to DEQ's Comstock 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  
Coppernoll Joint Ventures  
Jerry and Kim Coppernoll  
Wenzel Family Trust  
Michael & Debra McCarty  
Larry & Betsy Mehaffey  
Comstock Mine File

## ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Comstock 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 Comstock 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:** Daniel D. Stewart **Date:** 3/22/12  
Idaho Department of Environmental Quality  
300 W. Main  
Grangeville, ID 83530  
(208) 983-0808  
daniel.stewart@deq.idaho.gov

**Site Name:** Comstock Mine

**Previous Names (aka):** Idaho-Comstock, Independence, Dixie Comstock, Idaho Comstock, Comstock Independence, Seattle and Idaho

**Site Owner:** Coppernoll Joint Ventures  
**Address:** PO Box 107  
Dixie, ID 83525

**Site Owner:** Jerry and Kim Coppernoll  
**Address:** 308 Bash Street  
Cottonwood, ID 83522

**Site Owner:** Wenzel Family Trust  
**Address:** c/o Wesley Coppernoll  
PO Box 107  
Dixie, ID 83525

**Site Owner:** Michael & Debra McCarty  
**Address:** 13534 490<sup>th</sup> Avenue  
Easton, MN 56025

**Site Owner:** Larry & Betsey Mehaffey  
**Address:** 528 Rhett Creek Road  
Dixie, ID 83525

**Site Owner:** Lonnie Hefner ETUX  
**Address:** N/A

**Site Location:**

From IGS 2003:

*Access from Dixie, Idaho is south on FS Road 222D about 2 miles to Road 222D 1. The mine is about a mile southwest of this junction. The mill ruins are about a mile farther down the road along Comstock Creek. The mine is on patented claims, but the mill site is on Forest Service land.*

Township 25 North, Range 8 East, Section 10

**Latitude:** 45.51672°N **Longitude:** -115.45113°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 owners were unsuccessful.

The Comstock Mine was investigated by IGS on July 15, 1999. IGS reported collapsed buildings, a maintained cabin, a caved and dry adit, a bulldozed waste dump, and mill ruins. A soil sample was taken for analysis from the tailings pile below the mill.

The IGS report contained no information indicating any environmental concerns were observed or documented. This would indicate no potential releases of heavy metals by airborne means or surface and ground water existed which would cause any human health risks or ecological health risks. Additionally, potential discharges of other deleterious materials, such as petroleum products and ore processing chemicals would have been investigated.

**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?  |          | <b>x</b> |
| 2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?  |          | <b>x</b> |
| 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)?   |          | <b>x</b> |
| 4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?  |          | <b>x</b> |
| 5. Is there sufficient documentation to demonstrate that there is no potential for a release that constitutes risk to human or ecological receptors?<br><i>(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)?</i> | <b>x</b> |          |

**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 contaminants or hazardous substances remain on the site. No surface water, ground water or airborne pathways were detected. One maintained cabin is present on the claim.

**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.

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

| <b>If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.</b>  | <b>YES</b> | <b>NO</b> |
|---|------------|-----------|
| 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. One maintained cabin exists on the claim. A tailings pile from below the mill showed elevated levels of cadmium, copper and lead. The adit was dry. An examination of the topographic map shows no evidence of live water at the Comstock Mine adit area.

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.

| <b>Suspected/Documented Site Conditions</b>   |                            | <b>APA</b> | <b>Full PA</b> | <b>PA/SI</b> | <b>SI</b> |
|---|----------------------------|------------|----------------|--------------|-----------|
| 1. Releases or potential to release are not documented at the site. <b>YES</b>  |                            | 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) <b>YES</b>  |                            | Yes        |                |              |           |
| 3. On-site, adjacent, or nearby receptors are not present. <b>YES</b>   |                            | 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). <b>YES</b>   | Option 1: APA              | Yes        |                |              |           |
| 5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site. <b>NO</b>   | 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. <b>NO</b>  | 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. <b>NO</b> |                            | 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. <b>NO</b>  |                            | Yes        |                |              |           |

**Part 3 - DEQ Site Assessment Decision**

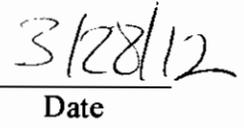
When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was “no,” then an APA may be performed and the “NRAP” box below should be checked. Additionally, if the answer to question 4 in Part 2 is “yes,” then you have two options (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:**

  
 Daniel D. Stewart

  
 Date

**Please Explain the Rationale for Your Decision:**

The 2003 IGS report indicated no areas of concern were found. Although one maintained cabin is on the site, information provided indicates the tailings pile is totally over grown and presumably very stable. The adit is dry. It is presumed no pathways exist relative to human health issues or environmental issues. IGS did not indicate any hazardous or deleterious materials on site.

No water samples were collected from this site. Although soil sample B7159908 from the tailings has elevated levels of cadmium, copper, and lead in the element screen. In the TCLP for metals test, lead is leaching from the sample. Analysis concentrations were not remarkable. Elevated metals concentrations in highly mineralized areas are typical for this geology.

DEQ recommends the property owners be advised of the leachable lead and elevated metals. Any surface land disturbances on the property should be seeded and stabilized to insure no pathways are produced relative to human health and environmental issues.

**As a result of the information contained in this APA, DEQ recommends the property status of the Comstock 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 mine site has two collapsed log buildings on the northwest side of the road and a maintained cabin across the road to the east. A pole corral is connected to the back of the cabin, and a log shed is against the hillside about 25 feet from the cabin. An outhouse is another 30 feet to the south. The caved, dry adit is next to the south side of the outhouse in dense brush. The waste dump has been bulldozed and leveled for the building site. The mine site covers several acres.*

*The mill ruins are southwest of the mine at the location marked "Ruins" on the topographic map. The mill extends from the road down to creek level. The upper part of the mill is partly intact, although dilapidated, but the lower part has completely collapsed. Concrete footings protrude through the pile of boards and timbers. The base for the water tank is beside the upper part of the mill. Barrel staves from the tank are preserved nearby. Below the mill are what appear to be both coarse stamp mill tailings and finer flotation tails separated by a 4-foot bank. The tailings are in concentric areas, with coarser material (possibly waste rock from the mill) overlying the finer material. The tailings are totally overgrown but are visible in exposures along the creek bank.*

*Another collapsed building is just east of the base of the mill. This building may have been an assay shack, because it contains some fire brick. There are also the ruins of a few cabins west of the mill. This site covers about 2 acres.*

***Geologic Features:** The Comstock Mine is in the quartzite and schist unit of the Middle or Early Proterozoic Syringa metamorphic sequence that forms a roof pendant or inclusions in the granitic rocks of the Idaho batholith. The mine is near intersecting northeast- and northwest-trending faults (Lewis and others, 1990, 1993). McKay (1996, p. 144-147) noted the following on the geology of the deposit:*

*The vein showed stringers and lenses of quartz in a shear zone trending north 53 degrees west, dipping steeply northeast. The country rock was mainly banded gneiss and pegmatite, and the hanging wall of the vein carried about a foot of gouge. Several lamprophyre dikes struck northeast and cut the vein and the shear zone, but the dikes were unsheared. The only sulfide was pyrite, in part oxidized to limonite. The ore reportedly carried much lead vanadate or chromate.*

***Water Sample:** No water samples were collected from this site.*

***Soil Sample:** Sample B7159908 of the tailings has elevated levels of cadmium, copper, and lead in the element screen. In the TCLP for metals test, lead is leaching from the sample. These values are not remarkable in highly mineralized areas and it is unlikely any human health risks or ecological health risks are associated with this area. DEQ does advise the landowners be apprised of the elevated minerals, and should any development occur on the property, disturbed areas should be stabilized immediately.*

***History:** The Comstock mine was one of the most productive mines in the Dixie mining district; several hundred thousand tons of ore were mined and milled there, with a reported recovery of \$60,000-\$250,000. The group of 12 patented and 15 unpatented claims was located on the east and south slopes of Mineral Hill about 3 1/2 miles southeast of Dixie, at approximately 5,560' on Comstock Creek.*

*W. E. Thompson and C. A. Youngberg discovered the Comstock in the summer of 1895 and soon built quarters near the waste rock pile. William H. Phelps of Chicago and E. G. Wagner and others bought the mine by 1896. Phelps was president of the Idaho Comstock Mining and Milling Company, the Spokane and Chicago company that bought the mine from the locators. In the fall of 1895, Sam Dillinger sold his quartz claims in Dixie to the Comstock company, which continued to develop the Dillinger claim. In 1897 the company employed fourteen men excavating a mill site, clearing ground, and making flumes to bring in water.*

*As soon as the wagon road to Dixie was completed from Elk City in September of 1897, a four-stamp mill was hauled over it to the Comstock. It was installed 1/4 mile below the adit, on Rhett Creek [the mill ruins are on Comstock Creek, which used to be called the West Fork of Rhett Creek], and was a water-powered Fraser & Chalmers mill with a capacity of 18 tons per day, with a rock crusher, an automatic ore feeder, and two Frue vanners. At that time the shaft on the Comstock was 110' deep and on the Dillinger 42' deep. The mill, the first stamp mill in Dixie, was successful; in January of 1898 it reportedly ground out approximately \$12,000 worth of gold. The company installed a steam hoist on the Dillinger lode. Ore was brought by team 1 1/2 miles from the ore bin to the mill, which was located in the center of the various claims.*

*The Comstock mine shut down in the early 1900s, largely because of costly litigation due to arguments among the owners. It was also reported that the original company ran all the ore in sight through the mill, divided the profits among the stockholders, and never considered further development (some, however, said there were no profits). The \$50,000 mill and concentration plant sat essentially inactive until 1905, although some work was done underground. In 1903 M. F. Tytler bonded the Comstock and other claims. The Seattle and Idaho Mining and Milling Company, with Tytler as manager, operated the Comstock in 1905 with 15 employees, running the four-stamp mill and a cyanide plant that treated the concentrates (the stamp mill saved only about 50% of the values on the plates, but cyanidation saved 85% of the concentrates' values). The company installed a gasoline plant because cyanidation required much water. The new company discovered a richer vein only a few hundred feet above the mill, which they developed.*

*A 1906 description of the gold recovery process at the Comstock reported that the ore was crushed by two two-stamp batteries, with quadruple discharge mortars, crushing to a 4-mesh screen. The stamps ran one shift only and could crush 30 tons during that time. The ore was mined on the "glory hole" system, with one man breaking the rock*

*and tramping it to the crusher. They leached the pulp for 24 hours. At that time the cost of mining and milling the ore was 90 cents per ton. In the summer of 1906, Richard Kleesattel, who replaced Tytler as manager of the Comstock, installed a steam plant to operate the mill during times of low water, but little ore was milled after that. The mine paid for itself from the net profits of 1906 and was again sold. That fall the owner was the Hines, Burke & Booth Company (all local Dixie miners). In 1906 a strike at the Comstock (then called the Independence) showed 3' of ore assaying \$358 per ton.*

*Development work continued on the Comstock through 1911. In 1909, ore from the Comstock Extension averaged \$21 on a 30" ledge, and ore from the Dillinger averaged \$40 on a 30" ledge. Thomas H. Minear, a miner from the Black Hills of South Dakota, managed the company in 1910 and 1911. In the summer of 1910 workers built a two-story, 16' x 30' blacksmith and machine shop and ordered a 24-stamp mill (this was probably not delivered). They installed T-rails in their long tunnel that was intended to give a vertical depth of 750'. Lessees worked the Dillinger lode in 1912 and ran ore from it through the North Star mill. The Comstock was next mentioned in 1916, when 25-30 men were working there, but then it shut down during World War I. In 1922 the owner was Charles E. Shepherd of Seattle, and Minear was still the manager. At that time there were three tunnels with lengths of 700', 200', and 200' respectively. One shaft was 140' deep. In 1916 the owners patented the Comstock B, C, E, F, G, H, J, and K lode claims, and the Independence claim. In 1925 they patented the Dillinger lode claim.*

*The Comstock came back to life in 1934, at which time the buildings were renovated and plans were made to begin milling operations. The bunkhouse and cookhouse were relocated to their present locations by lessees Dean White and Don George. T. H. and Cleora Minear continued to own the mine; they lived in Tacoma most of the year but worked at the Comstock in the summers. In 1935 a new 25- or 50-ton flotation mill was installed at the camp, and several hundred tons of ore were milled with a reported recovery of about \$15 per ton. During the year the company built housing facilities, a powder magazine, and a blacksmith shop. The equipment included a Gardner Denver compressor, ore cars, and other mining machinery. An average of 20 men were employed that year. The crew remained relatively large through 1936, and in 1937 the men built four cabins, improved the roads, and erected two fire tanks. In the 1930s most of the work was in the lowest adit. An adit was also driven across a small gulch from the main workings for several hundred feet on a small quartz vein and gouge seam in granite. In the summer of 1937 the mine's facilities included a gasoline-drive compressor, blacksmith shop, dry room, cook and bunkhouse, three family houses, and a 25-ton flotation mill about half a mile down the creek from the mine. The power source was a diesel engine.*

*In 1938 Dixie Gold, Inc., bought the Dixie Comstock Gold Mining Company and installed new equipment and machinery, including a ball mill. In 1940 and 1941 (until the U. S. entered World War II) the Comstock mill milled ore from the Comstock, Dixie Royal, North Star, and Ontario mines. William Frank, Clarice Robberson, and C. C. Clauson bought the Comstock sometime after 1940. Lee Hida worked as the caretaker at the Comstock until his death in 1952. Elmer*

*Wolff came to Dixie in 1949 and worked the Dillinger claim for a time. In 1959, Dixie residents Jack and Zip Wenzel bought the mine from Cecil Zortman. At present, some of the camp buildings and the mill are still standing.*

*The Dixie Comstock Mining Company was incorporated in May 1934. At that time, the mine was developed by 8 tunnels, the longest of which was 1,000 feet. A 50 ton-per-day mill was under construction in 1935, and 1,000 feet of underground work was completed.*

*Canyon Resources drilled 22 reverse circulation holes on the Comstock property in 1989. Nothing resulted from this exploration program. See the sections on the Dillinger and Robinson Dike mines for more information.*

*Between 1901 and 1939, the Comstock Mine produced 1,804 tons of ore. This material yielded 239.52 ounces of gold, 131 ounces of silver, 137 pounds of copper, and 1,556 pounds of lead. In 1989 or 1990, the property was held by the Majestic Mine Partners of Spokane, Washington (Neumann and Close, 1991).*

**Structures:** *The structures at the site have been mentioned previously. At the mine, these include the two collapsed log cabins, the maintained cabin, a small log storage shed, and the outhouse. At the mill, the structures include the ruins of the mill building, the collapsed shack, and the cabin ruins west of the mill.*

**Safety:** *The standing portion of the mill building is dilapidated and could easily collapse. There are abundant nails protruding from the boards and timbers of the collapsed structures*

## **References:**

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

Topographic Overview Map of the Comstock Mine Location. 10/25/2011. 1:24,000. Daniel Stewart; National Geographic Topographic Software.

<http://shop.nationalgeographic.com/ngs/product/topo%21-state-series/topo%21-idaho>

## **Attachment:**

Map

