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 Butte & Orogrande Mine, 
Idaho County, Idaho

Dear Mr. Marcy:

Attached is an Abbreviated Preliminary Assessment (APA) for the Butte & Orogrande Mine in the Crooked River drainage near Orogrande, Idaho. The Idaho Department of Environmental Quality (DEQ) did not visit this property due to lack of contaminant sources and receptors at this site.

A site inspection was conducted by the Idaho Geological Survey (IGS) in 1999. IGS observed the following:

This property consists of two large excavations and a collapsed adit. The southeastern pit (Pit 1) is the larger of the two and is 200 feet long by 120 feet wide with a 100-foot-high headwall. There is a small seep in the bottom of the pit, creating a boggy area. Pit 2 is approximately 75 feet northwest of Pit 1 and is 100 feet long by 50 feet wide, with the highest part of the headwall approximately 40 feet high.

The collapsed adit is 75 feet north of Pit 2 and just above the road along the West Fork of Crooked River. Mine rails cross the dump and project over the face. The dump is 20 feet long, 15 feet wide, and 15 feet thick, and consists mostly of coarse rock fragments. A small building along the road just north of the adit is probably related to this site. The disturbed area covers 2-3 acres.

The site inspection conducted by IGS provided direct observations that confirmed sources of contaminants of concern including hazardous materials and petroleum products were not present in quantities that pose 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. No occupied homes or cabins exist on the claim. No sediment, soil or water samples were taken.
As a result of the above information, **DEQ recommends the property status of the Butte & Orogrande Mine site be designated as No Remedial Action Planned (NRAP).**

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

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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  
Butte & Orogrande Mine File
ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Butte & Orogrande Mine in the Crooked River drainage near Orogrande, 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 Butte & Orogrande 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
Idaho Department of Environmental Quality
300 W. Main
Grangeville, ID  83530
(208) 983-0808
daniel.stewart@deq.idaho.gov

Date: 3/21/12

Site Name: Butte & Orogrande Mine (Hogan’s Mine)

Previous Names (aka): Orogrande-Frisco, Great Hogan, Hogan, Orogrande, Crooked River

Site Owner: U.S. Forest Service

Address: c/o Mr. Clint Hughes
Nez Perce National Forest
104 Airport Road
Grangeville, ID  83530

Site Location: From IGS 2003:

The mine is on County Road 233, 11.2 miles south of the junction with State Highway 14. The large pit is on the northern edge of the town of Orogrande. The site is either on private or Forest Service land.

Township 27 North, Range 7 East, Section 1

Latitude: 45.70833°N  Longitude: -115.54167°W

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

DEQ did not visit this property due to lack of contaminant sources and receptors at the Butte & Orogrande Mine site.
The Butte & Orogrande Mine was investigated by IGS on July 13, 1999. IGS reported the site is dominated by an open pit and high wall. No sediment, soil, or water samples were taken indicating a dry, innocuous site.

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 had they existed.

**Part 1 - Superfund Eligibility Evaluation**

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the site currently in CERCLIS or an “alias” of another site?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>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)?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>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)?</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

**Please explain all “yes” answer(s):**

The site inspection conducted by IGS provided direct observations that confirmed sources of contaminants of concern including hazardous materials and petroleum products were not present in quantities that pose 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. No occupied homes or cabins exist on the claim. No sediment, soil or water samples were taken.
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.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the site have a release or a potential to release?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>2. Does the site have uncontained sources containing CERCLA eligible substances?</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3. Does the site have documented on-site, adjacent, or nearby targets?</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

### If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td></td>
<td></td>
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</table>

### 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. No occupied homes or cabins exist on the claim. There is no mention of any drinking water sources and IGS did not report any water on the site.

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.

<table>
<thead>
<tr>
<th>Suspected/Documented Site Conditions</th>
<th>APA</th>
<th>Full PA</th>
<th>PA/SI</th>
<th>SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Releases or potential to release are not documented at the site. <strong>YES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Uncontained sources with CERCLA-eligible substances have not been documented as being present on the site. (i.e., they do exist at site) <strong>YES</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. On-site, adjacent, or nearby receptors are not present. <strong>YES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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). <strong>YES</strong></td>
<td>Option 1: APA</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site. <strong>NO</strong></td>
<td>Option 2: Full PA or PA/SI</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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. <strong>NO</strong></td>
<td>Option 1: APA SI</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Option 2: PA/SI</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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. <strong>NO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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. <strong>NO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 is “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:

<table>
<thead>
<tr>
<th></th>
<th>No Remedial Action Planned (NRAP)</th>
<th>Defer to NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Higher Priority SI</td>
<td>Refer to Removal Program</td>
</tr>
<tr>
<td></td>
<td>Lower Priority SI</td>
<td>Site is being addressed as part of another CERCLIS site</td>
</tr>
<tr>
<td></td>
<td>Defer to RCRA Subtitle C</td>
<td>Other:</td>
</tr>
</tbody>
</table>

DEQ Reviewer:

[Signature]
Daniel D. Stewart  3/27/12  Date

Please Explain the Rationale for Your Decision:

The 2003 IGS report indicated no areas of concern were found. No occupied homes or cabins exist on the site, thus no pathways exist relative to human health risks or environmental risks. No drinking water sources or residences exist in close proximity to the Butte & Orogrande Mine. IGS did not indicate any hazardous or deleterious materials on site. No soil, sediment, or water samples were taken.

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

Notes:

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

Site Description: This site is dominated by an open pit with dimensions in excess of 700 feet long and 700 feet wide. The highwall to the west is at least 70 feet high. There may have been an adit on the eastern side of the pit at the level of the main road where there is a pile of collapsed timbers. A large pile of bags with drill cuttings is on the northwest side of the pit on an upper bench. The total disturbed area at this site is approximately 25 acres.
**Geologic Features:** The Orogrande-Frisco Mine is on the Orogrande shear zone in Late Cretaceous biotite granodiorite (Lewis and others, 1990, 1993). Shenon and Reed (1934) noted that, in the Orogrande-Frisco pit, granitic rocks intruded dark grayish-green schist. Lorain (1938, p. 38) described the deposit as follows:

The ore occurs as disseminations in the wide zone of shearing and fracturing that extends in a northerly-southerly direction along Crooked River. The country rock is highly silicified, dark, grayish-green schist that contains much pegmatitic material. Sulphide mineralization, which consists chiefly of pyrite, is more intense in the schist than in the pegmatite, although both pegmatite and schist have been mineralized. The ore near the surface has been almost completely oxidized except for occasional stringers of sulphides.

**History:** The Orogrande-Frisco Mine was the most productive of the low-grade, disseminated, shear-zone hosted gold mines in the area (Bennett and others, 1999). A twenty-stamp mill was built on the property in 1902 (Jellum, 1909). By 1905, the property was operated by the Crooked River Mining and Milling Company (incorporated in 1901). This company operated a 250-tpd cyanide plant on an experimental basis for part of 1905 (Heikes, 1906). Crooked River forfeited its corporate charter in 1912.

By 1908, the mine was operated by the Butte & Orogrande Mining Company, Limited (incorporated in 1907). Jellum (1909) described the operators' difficulties in developing a successful milling process for the ore. The mine was active nearly every year from 1902 to 1909 and from 1914 to 1920. In the period between 1902 and 1920, the mine produced 2,927 ounces of gold and 309 ounces of silver from 42,491 tons of ore (Lorain, 1938). The Butte & Orogrande Mining Company forfeited its corporate charter in 1915.

Orogrande Gold Mining Company took over the property in 1914. This company was incorporated in Washington in 1913 and never filed paperwork to operate in Idaho. However, it was probably the company responsible for most of the 1914-1920 operations mentioned above. This Orogrande Gold Mining Company was dissolved in 1919 after reorganizing into a new Orogrande Gold Mining Company in 1918. This second Orogrande Gold Mining Company filed to conduct business in Idaho in 1919. For the next few years, the company confined its efforts to assessment work and to revamping the milling process. After the mid-1920s, only assessment work was done, and in the late 1920s, the company began trying to attract outside investors. By late 1931, the company was in the hands of a receiver. The property had at least 5,000 feet of workings.

In October 1931, the property was leased to the Empire Metals Company, which had been incorporated in 1927. The president of this company was William Hogan, who may have either been the original locator of the mine (the "Hogan" in "Hogan Mine") or a relative. Empire Metals apparently held the mine for at least two years, but did only assessment work. The company forfeited its corporate charter in 1942.
In January 1934, Orogrande Gold leased the property to J. R. Moore of Lewiston, Idaho. Moore, in turn, leased the property to Orogrande-Frisco Mines, Inc.; Moore was the president of the company. (Orogrande-Frisco had been incorporated in 1933 as Frisco Gold Mines, Inc., and changed its name to Orogrande-Frisco in early 1934.) This company put the mine into operation, mining more than 5,600 tons of low-grade gold ore from the open pit on the property during 1934. The ore was mined by a steam shovel and treated in the cyanide plant. In its first year of operation, the company spent more than $200,000 to modernize the mill and additional money to upgrade the mining equipment. The mine produced 90,000 tons of ore in 1936 and 70,000 tons of ore in 1937, while continuing to improve the mill and add to the equipment in the mine. Lorain (1938) described the operation of the mill in detail. In 1938 the mine produced 105,983 tons of low-grade gold ore which yielded 1,917 ounces of gold and 1,076 ounces of silver. The mine closed in late November. The Mount Vernon Company dredge apparently operated on the mine's placer claims during 1941 and 1942. Some mill cleanings were processed in 1942. The Orogrande Gold Mining Company forfeited its corporate charter in 1945, and Orogrande-Frisco Gold Mines forfeited its charter in 1947.

In 1983, Centennial Minerals, Ltd., drilled and evaluated a large claim block centered on the Orogrande-Frisco pit. The following year, Centennial drilled 10 holes at the pit under an agreement with ABM Mining Group, Inc., but dropped the property in the fall. Starting in 1985, Amir Mines, Ltd., and Normines Resources, Ltd., evaluated the Orogrande area.

**Structures:** There are no structures at this site.

**Safety:** There are no hazards associated with the Butte & Orogrande Mine.

**References:**


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

**Attachment:**
Map
Topographic Overview Map of the Butte & Orogrande Mine Location
(Map Source: National Geographic Topographic Software).