Wolftone Mine

(aka Wolftone claim)

Preliminary Assessment Report

Blaine County
State of Idaho

Department of Environmental Quality

January 2008

Submitted to:
U. S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101
January 14, 2008

WILLALI JACK MINING CO.
c/o Mr. Jack S. Brooks
1184 Lavina Avenue
Twin Falls, Idaho 83301

RE: Site Assessment of the Wolftone (Wolftone Mine) patented mining claim, Sec. 18 & 19 T2N R17E (Lat 43° 29' 55.66" N Long 114° 28' 27.12" W).

Dear Mr. Brooks:

The Idaho Department of Environmental Quality (IDEQ) has completed a review of historical mining data and geological information at the above referenced site. Subsequent to that review, IDEQ conducted a site visit of the Wolftone claim (property). During the site visit, mining facilities were mapped and sampled to complete the analysis necessary to complete a final Preliminary Assessment (PA) report.

Preliminary Assessments are conducted according to the Federal Comprehensive Environmental Response, Compensation and Liabilities Act. The reasons to complete a Preliminary Assessment include:

1) To identify those sites which are not CERCLIS caliber because they do not pose a threat to public health or the environment (No Remedial Action Planned (NRAP));

2) To determine if there is a need for removal actions or other programmatic management of sites;

3) To determine if a Site Investigation, which is a more detailed site characterization, is needed; and/or

4) To gather data to facilitate later evaluation of the release through the Hazard Ranking System (HRS)

IDEQ has also completed PAs under contract with the U.S. Environmental Protection Agency in order to identify risks to human health and the environment, and to make recommendations to land owners regarding how risks might be managed under current site conditions and in future use scenarios.
Based on existing conditions and uses, historic information, data observations made during the site visit, and analysis of the mine water, potential pathways of contaminants to receptors, and potential exposures to ecological and human receptors, IDEQ has determined that No Remedial Action is Planned (NRAP) for the referenced property and mine site. However, should site conditions or uses change in the future, owners of these properties would be well advised to conduct additional site assessment work and incorporate risk management in their development and/or operating plans.

Attached is an “abbreviated” Preliminary Assessment Report of the property and mine facilities. The report contains copies of historic mining reports, geologic information, data results, and maps of the property, along with a brief checklist of how IDEQ came to its recommendation that the property status is NRAP.

IDEQ very much appreciates your cooperation and approval for our access, and looks forward to addressing any questions you may have regarding our findings.

Sincerely,

Bruce A. Schuld
Mine Waste Projects Coordinator
Waste Management and Remediation Division

Attachment

cc: Ken Marcie – U.S. Environmental Protection Agency
    Jeff Gabardi – USDA Sawtooth National Forest
    Megan Stelma – Blaine County
SECTION 1

The relative per cent of ownership and listed owners is not warranted by the Idaho Department of Environmental Quality. The following names and addresses of owners and their relative percentage of ownership were obtained from the tax rolls at the Blaine County Tax Assessor’s Office.

**Ownership**

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Claims and Per Cent Ownership:</th>
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<tr>
<td>Jack S. Brooks</td>
<td>50% Wolftone Patented Claim</td>
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<tr>
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<tr>
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<tr>
<td>Bill Brooks, Jr.</td>
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<td></td>
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<td>Alan B. Brooks</td>
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<td></td>
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<tr>
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SECTION 2

Introduction

The results of the preliminary assessment (PA) conducted at the Wolftone (Wolfstone Mine) patented mining claim are included. The Department of Environmental Quality (DEQ) was contracted by Region 10 of the United States Environmental Protection Agency (EPA) to provide technical support for completion of preliminary assessments at various mines within the Mineral Hill Mining District in Blaine County, Idaho.

DEQ often receives complaints or information about sites that may be contaminated with hazardous waste. These sites can include abandoned mines, rural airfields that have served as bases for aerial spraying, old landfills, illegal dumps, and abandoned industrial facilities that have known or suspected releases.

In February 2002, DEQ initiated a Preliminary Assessment Program to evaluate and prioritize assessment of such potentially contaminated sites. Due to accessibility and funding considerations, priority is given to sites where potential contamination poses the most substantial threat to human health or the environment. Priority was also given to mining districts where groups or clusters of sites could be assessed on a watershed basis.

For additional information about the Preliminary Assessment Program, see the following:

http://www.deq.idaho.gov/waste/prog_issues/mining/pa_program.cfm

Access to assess the Wolftone patented mining claim located in Sec. 18 & 19 T2N R17E (Lat 43 29’ 55.66” N Long 114 28’ 27.12” W) was provided by Mr. Jack S. Brooks (co-owner). Access to the Wolftone property is gained by traveling west from Hailey, Idaho on Deer Creek Road. The Deer Creek Road is paved for several miles after which it turns into an improved dirt road. Approximately, nine miles up Deer Creek, one turns south (left) onto the Wolftone Creek Road. At approximately one mile from the junction with Deer Creek, the road passes into an area of tailings from historic milling operations. The road across the tailings to the west for an additional 1.5 miles until reaching a small meadow to the south (left) of the road. The unmarked old road leading to the Wolftone workings lies about 100 yards west of the meadow along the base of the hill. The old road which traverses through the forest toward the east is overgrown, often blocked with deadfall timber. Approximately 50 yards below Adit # 1, the road encounters marshy ground as it crosses the discharge from the mine. The road continues uphill to the south past Adit # 1 for another 0.25 miles before ending at Adit # 2. Beyond this point, trails lead to Adit # 3 and the numerous prospects located across the slope to the west and directly uphill from Adit # 2.
SECTION 3

Mine Site History

According to land patent records, the original mineral patent was issue to H.N. Borman and W. T. Riley on June 12, 1897 (BLM, 2007).

The deposits were found in 1883, and most of the ore produced from the property was mined in the succeeding few years. It is reported that in 1883 to 1887 700.9 tons of a gross value of $75,155.43 was shipped...Since 1887 most of the work has been done by lessees. The last work in the Sweed tunnel, the longest on the property, was done in 1912. In August, 1928, W.T. Riley was at work clearing out one of the upper tunnels.

The property comprises five claims...The Sweed tunnel, which has its portal on the Detroit claim, is the most extensive one on the property. This tunnel and the short drifts that lead from it have a total length of nearly 2,000 feet, but parts of it is now caved. The tunnel in which work was in progress at the time of visit is about 90 feet vertically above the Sweed tunnel, and its portal is several hundred feet farther south on the Wolftone claim. This tunnel is being reopened to reach a vein exposed in some of the old workings on the mountain side above. These old workings consist of several short branching tunnels which are now all more or less caved. None of them attained much depth, and nearly all the ore mined is reported to have come from close to the surface.

The rock that incloses the deposits belongs to the Wood River formation, but a short distance to the west a large mass of soda granite crops out. The Sweed tunnel crosscuts the Wood River strata, which here strikes northwest and dip rather steeply southwest. Near the end of the accessible part of the tunnel, near the floor, several lenses and irregular stringers of quartz are exposed. In the space above the pile of caved rock that blocks the tunnel there is a well-defined slip that stands nearly vertical and has a northward strike. In the tunnel beyond this slip some granite containing a little sphalerite and other evidence of mineralization is reported to have been encountered. The vein sought in the tunnel that is being reopened strikes a little east of north and dips about 85° E. Some work was done on it in the past, and lead-silver ore was mined. One of the old tunnels above this one exposes a vein whose strike is N 5° E., and dip 30° E. and which contains calcite and galena. In another there is a slip that strikes N 80° W. and dips 20°-40° SW. Mr. Riley states that the old workings exposed two intersecting veins, only one of which contained commercial ore.

Umpleby, et al. 1930, pp. 172-173

According to a partial record of early production [1883-1898], the Ketchum smelter reported 0.130 ounces of gold, 17,839.3 ounces of silver, 244,588 pounds of lead and 177 pounds of copper from 262.3 tons of ore (ibid).
SECTION 4  
Climate

Climate information provided in this section is based on a climatological summary for Hailey, Idaho which was obtained from the National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center. The climatological data was collected at the Hailey Airport (elevation 5,328 amsl), and is for the period of 1951 through 1980. Each site for which this data is used is subject to more localized meteorological conditions that result from difference in elevation, orientation of slopes in watershed, vegetation and other factors.

The area around the site is characterized by short cool dry summers and very cold winters. The total annual precipitation measured at the Hailey Airport averages 16.2 inches. The majority of precipitation occurs as snow. Total annual snowfall averages 78.2 inches with most snowfall occurring in December and January. The driest months are July, August and September.

Based on records from 1951 to 1980, the average annual temperature measured at the Hailey Airport is 43 degrees Fahrenheit (F). The lowest temperature recorded for this period was –28 degrees F in 1962. The highest temperature for this period of record was 100 degrees F in 1953. January is the coldest month with an average temperature of 19.5 degrees F. July is the hottest month with an average temperature of 67 degrees F.
SECTION 5

General Geology

The Hailey-Bellevue mineral belt is underlain by a varied assemblage of sedimentary and igneous rocks, which, except for volcanics of mid-Tertiary age and some still younger unconsolidated sedimentary rocks, are all older than the ore deposits. The earlier rocks include fairly wide exposures of the Milligen and Wood River formations that host many of the ore deposits in the Wood River region. They also host rather large intrusive bodies of diorite and quartz monzonitic rock which are regarded as outliers of the Idaho batholith. There is a younger group of intrusive rocks which are of more pertinent interest because of their close association with the mineralization. ...In addition to the Milligen formation (Mississippian age) and the Wood River formation (Pennsylvanian age), the area contains some strata in and beneath a series of Tertiary volcanics (Oligocene) and much poorly consolidated and unconsolidated slope wash, terrace gravels, and stream alluvium of Quaternary age.

Anderson, 1950, p. 2

Anderson (p 7) went on to note that, “The folding within the area is comparatively simple and consequently faulting constitutes the outstanding feature.”

Numerous studies of the geology and mineral resources of the Wood River and adjacent areas have been made. Geologic studies have been conducted to investigate mineral deposits (Lindgren, 1900 & 1933; Umpleby et al, 1930; Anderson and Wagner, 1946; Anderson et al, 1950; Hall et al, 1978; Wavra and Hall, 1989; Link and Worl, 2001; Worl and Lewis, 2001); individual formations and units (Hall et al, 1974; Sandberg et al, 1975; Wavra and Hall, 1986; Worl and Johnson, 1995); quadrangles (Batchelder and Hall, 1978; Mitchell et al, 1991; Kiislgaard et al, 2001) and to compile regional information (Rember and Bennett, 1979). Preliminary and environmental assessment investigations have been conducted to assess current and potential impacts from historic mining in the region (Mitchell and Gillerman, 2005; IDEQ, 2002 & 2006; IDEQ & USEPA, 2006 & 2007).

Stratigraphy and Lithology

Link and Worl (2001) reviewed previous geologic and historic information relating to stratigraphy and mineralization relationships in the Mineral Hill district, including Red Elephant Gulch.

The Bullion mineralized area...is underlain by the lower and middle members of the Pennsylvanian and Permian Dollarhide Formation, which are folded into upright and west-overturned map scale folds....The lower member of the Dollarhide Formation hosts most of the mineralized rock (Skipp and others, 1994). Fryklund (1950), following Umpleby and others (1930), labeled these rocks as Wood River Formation, though he notes, “it is possible that Milligen formation is also present” (p. 64). An unpublished map (circa 1970) of W.E. Hall labels the dark-colored rocks in the Bullion area as Milligen Formation. Hall (1985) showed the rocks as Dollarhide Formation, and Wavra and Hall (1989) showed them as upper member, Dollarhide Formation.
The lower member of the Dollarhide Formation in the Bullion area contains fine- to medium-grained sandstone, black siltite and black limestone or marble. A distinctive lithology in the lower member is channelized disorganized conglomerate that contains mainly intrabasinal soft-sediment clasts of siltstone and sandstone. The lower member occupies both sides of Bullion Gulch and the central part of Red Elephant Gulch. The rocks east of Bullion Gulch are mapped as being stratigraphically high in lower member Dollarhide Formation, because the middle member quartzite is not present. They are intruded on the east by the Deer Creek stock.

In the Bullion area the middle member of the Dollarhide Formation (regionally about 300 m [984 ft] thick) contains silicified sandstone that crops out as light-gray to brown quartzite that forms the high ridge between Red Elephant and Bullion Gulches. These rocks were shown as Wood River Formation on the map of Hall (1985). The mineralized veins of the Bullion area do not extend southward into the middle member Dollarhide Formation. The middle member, much less silicified, is also present in west-dipping beds on the ridge of Kelly Mountains.

Link and Worl, 2001, pp. 12 & 14

The Wolftone is located to the north of the ridge separating the Deer Creek and Croy Creek drainages. Red Elephant Gulch lies approximately two miles to the east and Bullion Gulch lies three miles to the east-northeast of the Wolftone. Kelly Mountain, upon which several minor mines and prospects have been worked, lies 1 miles due south of the Wolftone.

Structure

Fryklund (1950, pp. 65-66) noted the following in regards to the structure of the rocks:

The most obvious and significant structural features of the area are the major faults or fault zones which divide the area into a number of distinct blocks...The age of the oldest faults are to be placed as pre-intrusive and possibly all the major faulting is pre-intrusive...All of the major faults are probably pre-mineral as well as pre-intrusive.

Umpleby, et al (1930, p. 217) noted a broad anticline southwest of the river: Southwest of the river the beds dip generally westward at inclinations that largely range from 20º to 40º. It’s thus clear that the sediments form a broad anticline, of which the crest almost coincides with the Big Wood River Valley.
SECTION 6

Current and Future Potential Beneficial Uses

Current land uses in the area include biking, hiking, hunting, horseback riding, off-road vehicle touring and timber harvest. Currently, there are no indications of active mining or timber operations.

Due to its remoteness and the potential for avalanches, it is very unlikely that full time residences would be developed on this patented mining claim. There is a potential for development of season housing such as hunting cabins, or housing and mine buildings if mineral values made it conducive to redevelop operations of these claims. There have been no communications with land owners that indicate that there is any desire to develop this claim in the future.
SECTION 7

Site Conditions and Waste Characterization

Generally speaking, the mine workings on the Wolftone patent are high in elevation, either located amid thick vegetation or exposed on steep rocky slopes. There is evidence of drainage from the caved Adit # 1, but the remaining workings did not exhibit any evidence of discharge. One water sample was collected from the Adit # 1 drainage, but due to the minimal waste dump volumes and apparent lack of massive sulfide mineralization, no soil samples were collected.

Accuracy for the location of mine openings and waste dumps on the claim is questionable because mapping was conducted using GPS, county maps, and patented plat maps, none of which have been tied together by a land survey. Therefore, IDEQ does not warrant any of the maps, or diagrams contained in this Preliminary Analysis.

According to historical accounts, the Sweed Tunnel (correlated to Adit # 1) and associated drifts were driven nearly 2,000 feet. The waste dump (WD # 1) which was bisected by the discharge from the collapsed adit was estimated at 200 cubic yards. Adit # 2 was collapsed and its waste dump was small, estimated to contain less than 150 cubic yards of material and, similarly contained little if any, sulfides. Adit # 3 was also collapsed and its waste dump was nearly indistinguishable from the surrounding talus slope rock. Limestone devoid of mineralization was noted, here (see Wolftone Sketch).

Numerous prospect “holes” were identified along the slope near Adit # 3 and uphill from Adit # 2, but these were assumed to be very shallow as their remnant dumps are very small (less than 50 cubic yards). None of them contain massive sulfide mineralization, and that may be indicative that there was no significant ore production.
Wolftone Sketch
Sample Collection
A representative sample [UNKW A1 SW1] of discharge water was collected from the collapsed portal of Adit # 1. Field parameters, such as pH, temperature and specific conductance were not recorded, due to equipment malfunction.

Sample Analysis
Concentrations of metals in adit discharge meet the water quality criteria for those metals analyzed in the sample. The analysis is provided in Table 1.

Table 1: Total Recoverable Metals Analysis (mg/L)
(Standards in “dissolved” unless stated)

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<th>Description</th>
<th>IDEQ Ground Water Standard</th>
<th>IDEQ Drinking Water Standard</th>
<th>IDEQ Cold Water Biota Standard</th>
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<td>Aluminum</td>
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* secondary MCL  (T) – Standard in Total  (H) – Hardness dependent * 25 mg/L
View – SSE: Adit # 1 drainage on old mine road

View – W: Adit # 1 drainage forms small pond on top of waste dump, old rails (upper center). Pond area (40 ft²) overflows through waste dump.
Wolftone Adit # 1 [Sweed tunnel]. Water discharges from collapse at lower right.

Cabin remains adjacent to Adit # 1
Wolftone # 1 Waste Dump, very minor sulfide mineralization

View – SE: Remnant rails leading from collapsed Adit # 2, sulfide mineralization was not apparent on the waste dump
SECTION 8

Receptors Pathways and Environmental Hazards

Residences, Schools and Day Care Facilities

There are not any residences, schools or day-care facilities within 200 feet. The Forest Service operates an unimproved seasonal campground near the confluence of Wolftone Creek and Deer Creek, approximately 2.5 miles to the north. The nearest residence is located approximately 3.95 miles to the southeast of the mine at the intersection of Red Elephant Gulch and Croy Creek Road and lies within the Croy Creek drainage.
Wetlands

The national data base on wetlands inventories indicates that no jurisdictional wetlands exist within 2.5 miles below the mine site. Although wetland and riparian communities exist adjacent to Deer Creek and the Big Wood River, no wetlands were observed at the site. Timber and heavy under-story vegetation encompasses the course of the drainage from Adit # 1. This vegetation does not appear to have suffered any phytotoxic affects, but there are indications of disturbances that may have occurred during residential and agricultural developments along Deer Creek and the Big Wood River. Therefore, there are no indications that adverse affects are the result of developments or drainage from the Wolftone Mine.
Sensitive Species

Although the site is located within a defined range and habitat for wolves, the size of the waste dumps relative to the total range is very minuscule and therefore unlikely to be a significant source for exposure.

Fisheries

From its headwaters to approximately 1.5 miles below the property, Wolftone Creek is an ephemeral stream. Fish presence/absence studies have not been conducted on either the lower reaches of Wolftone Creek or Deer Creek to confirm any fish species that may reside in these streams. However, visual observations confirm the presence of brook trout [Salvelinus fontinalis] in Deer Creek. Redband rainbow trout [Oncorhynchus mykiss gairdneri], mountainwhitefish [Prosopium williamsoni], wood river sculpin [Cottus leiopomus], and brook trout [Salvelinus fontinalis] are present within the Big Wood River (IDFG, 2000).

Sensitive Waterways

There are not any Clean Water Act 303(d) listed streams immediately down gradient from the Wolftone which might be adversely affected by contaminant delivery from the site.

Livestock Receptors

There are no indications that the area is used for livestock grazing. However, there are indications that hunters have seasonally grazed horses and/or mules nearby along Wolftone Creek.

Ground Water Pathway

The closest drinking water well is located approximately 3.95 miles to the southeast of the Wolftone at the mouth Red Elephant Gulch. Owing to the lack of information regarding structural continuity between the Deer Creek and Croy Creek drainages, it is presumed that this drinking water well would not be affected. Furthermore, although there may be some infiltration of meteoric waters, the surface areas of the mine waste dumps and the extent of the underground workings, are insignificant when compared to the ground water recharge area of the entire sub-watershed. Therefore, the ground water pathway appears insignificant.
Air Pathway

Generally speaking, mine waste on dumps was very coarse with very few fines that might be subject to suspension on the wind. Adit # 1 waste dump and several prospects lie beneath the forest canopy and are not readily subject to air movement. Waste dump # 2 is partially vegetated and its material is moderately consolidated. Consequently, the likelihood of aerial dispersion of particulates is expected to be minor.

Soil Exposure Pathway

The Wolftone claim is situated on the northwestern flank of a steep ridge. The workings, consisting of minor prospects, shallow tunnels and exploratory cuts, range in elevation between 6,800 and 7,400 feet amsl. Likely receptors are hikers, hunters and wildlife.

There were not any surficial indications that significant sulfide mineralization was present on any of the Wolftone’s waste dumps. Many of the prospects dumps as well as the Adit # 3 waste dump appeared to be entirely devoid of sulfide mineralization. The waste dumps did not appear to contain significant sulfide mineralization and, consequently, soil samples were not collected. The likelihood of soil exposure appeared to be minimal.

Surface Water Pathway

The lowest working, Adit # 1, was observed to discharge water (estimated at < 1 gpm) into a small pond located on the adjacent landing. The minor flow incised the waste dump, coursed across the old mine road before infiltrating near the ephemeral gulch to the north.

There are no drinking water intakes within the 15-mile Target Distance Limit (TDL). The following TDL in-water segment was calculated from the lowest elevation workings on the Wolftone. The gulch’s streambed merges with the ephemeral upper portion of Wolftone Creek at 0.4 miles, is enjoined by perennial flow from an unnamed gulch near historical mill tailings at 1.9 miles, and merges with Deer Creek at 2.8 miles. Deer Creek continues flowing to the east-southeast for approximately 8.25 miles until it merges with the Big Wood River. The Big Wood River continues to the south for the remainder of the 15-mile TDL.

Though Waste Dump # 1 has been bisects by discharge from the adit, the eroded material was not distinguishable on the slope below, owing to thick vegetation. The drainage from the adit infiltrates through the forest duff and does not exhibit any surface expression. Therefore, there does not appear to be a significant surface water pathway.
Section 9

Summary and Conclusions

Based on existing conditions and uses, historic information, data observations made during the site visit, and analysis of the mine wastes, potential pathways of contaminants to receptors, and potential exposures to ecological and human receptors, IDEQ has determined that No Remedial Action is Planned (NRAP) for the Wolftone Mine and patented claim. However, should site conditions or uses change in the future, owners of these properties would be well advised to incorporate more detailed site assessment and perhaps risk management in their development and/or operating plans. IDEQ has noted drainage from Adit # 1 on the property, but analytical data confirms that the concentrations of metals in adit discharge meet the water quality criteria.
References


http://www.glorecords.blm.gov/PatentSearch/Detail.asp?Accession=IDIDAA+044526&Index=1&QryID=63567.73&DetailTab=1

Environmental Protection Agency (EPA), 2007.

http://www.epa.gov/Region6/6pd/rcra_c/pd-n/screen.htm

Idaho Department of Environmental Quality (DEQ), 2006. Safe Drinking Water Information System (SDWIS).

Idaho Department of Fish and Game (IDF&G), 2002.

http://www2.state.id.us/fishgame/info/cdc/plants/vasc_plants&status_n-r.htm

Idaho Department of Fish and Game (IDF&G), 2000. Redband Trout Distribution.

Idaho Department of Environmental Quality (DEQ), 2000. 1998 303(d) list.

Idaho Department of Water Resources (IDWR), 1997. COVERAGE IDOWN -- Idaho Surface Ownership.

Idaho Department of Water Resources (IDWR), 2006.

http://www.idwr.idaho.gov/water/well/search.htm

IDWR², 2002. GIS shapefile of well database.


Western Regional Climate Center (WRCC), 2007. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?id=hidail
APPENDIX A
ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist can be used to help the site investigator determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Brian Gaber – IDEQ 1/4/2008
(Name/Title) (Date)
1410 N. Hilton 208-373-0566
(Address) (Phone)
Brian.gaber@deq.idaho.gov
(E-Mail Address)

Site Name(s): ________Wolftone Mine

Previous Names (if any): aka Wolftone Patented Mine Claim

Site Location: Wolftone Creek Road, 8 Miles West of Hailey Idaho
(Street)
(City) (ST) (Zip)

Latitude: 43° 30' 05.5” N Longitude: 114° 28' 26.6” W

Describe the release (or potential release) and its probable nature: Sediment and heavy metals were suspected as having been release to the air and both surface and ground waters. Exposures to local residents, recreationists, and wildlife was also suspected prior to completing a site visit.

Part 1 - Superfund Eligibility Evaluation

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

<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 potentially released at 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 potentially released at 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 no potential for a release that could cause adverse environmental or human health impacts exists (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). __________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

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### 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>X</td>
<td></td>
</tr>
<tr>
<td>2. Does the site have uncontained sources containing CERCLA eligible substances?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Does the site have documented on-site, adjacent, or nearby targets?</td>
<td>X</td>
<td></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 1 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>
</tr>
</tbody>
</table>

**Notes:** Although the potential exists for a release from the source, it is remotely located; the pathways are incomplete to viable receptors; or there is no indication that exposure(s) have occurred.
Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. You will 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 judgments 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. There are no releases or potential to release.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2. No uncontained sources with CERCLA-eligible substances are present on site.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>3. There are no on-site, adjacent, or nearby targets.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4. There is documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has not been exposed to a hazardous substance released from the site.</td>
<td>Option 1: APA SI</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Option 2: PA/SI</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>5. There is not an apparent release at the site with no documentation of targets, but there are targets on site or immediately adjacent to the site.</td>
<td>Option 1: APA SI</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Option 2: PA/SI</td>
<td>No</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>6. 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 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site.</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>7. There is 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>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Part 3 - EPA 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 "NFRAP" 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>APA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NFRAP</td>
<td>Refer to Removal Program - further site assessment needed</td>
</tr>
<tr>
<td>Higher Priority SI</td>
<td>Refer to Removal Program - NFRAP</td>
</tr>
<tr>
<td>Lower Priority SI</td>
<td>Site is being addressed as part of another CERCLIS site</td>
</tr>
<tr>
<td>Defer to RCRA Subtitle C</td>
<td>Other:</td>
</tr>
<tr>
<td>Defer to NRC</td>
<td></td>
</tr>
</tbody>
</table>
Regional EPA Reviewer: ________________________ ________________
Print Name/Signature ____________________ Date

PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION:

__________________________________________________________________________

__________________________________________________________________________